300. (Unchanged) The method of claim 108, further comprising the step of determining one of a programming kind and subject matter contained in said plurality of signals.

301. (Unchanged) The method of claim 120, wherein a first of said plurality of receiver stations is caused to transit said portion of said information transmission based on said signal and a second of said plurality of receiver stations is caused to store portion of said information transmission based on said signal.

302. (Amended) The method of claim 120, wherein [said] a first of said plurality of receiver stations is caused to select one of a plurality of transmitters and communicate said portion of said information transmission to said selected one of said plurality of transmitters.

303. (Unchanged) The method of claim 120, wherein one of said plurality of receiver stations is caused to receive said portion of said information transmission based on said signal.

II. REMARKS

A. Introduction

Applicants have carefully reviewed the Office Action issued on May 19, 2000, (Office Action) and request the foregoing amendments be entered in response thereto.

1. Claim Accounting

Applicants request amending claims 3-21, 23-25, 27-45, 47, 59, 68, 69, 71-74, 76-79, 81-84, 86, 88-92, 97-99, 101, 102, 104, 105, 107, 110-127, 129-133, 139, 145,152-169, 188-205, 212, 215, 217, 219, 223, 224, 235, 241, 249, and 302. Claims 2-303 are pending in the application. Applicants present no new matter and raise no new issues in the foregoing amendments. The amendments seek to clarify the claims in direct response to the issues raised in the Examiner's rejections. Applicants respectfully request approval and entry of this amendment.

2. Summary of May 19, 2000 Office Action

The following summarizes the objections, rejections, and requests in the May 19, 2000 Office Action. Applicants respond to each objection, rejection, and request in turn in the following response.

1. Clarification is requested as to when Applicants intend to complete the agreement to consolidate Applicants' related co-pending applications. Applicants respond to this request at section B below.

2. The Examiner requests Applicants to identify the most relevant art, in the information disclosure statements, to the pending claims. Applicants respond to this request at section C below.

3. Claims 8 and 15 are objected to as containing certain informalities. Applicants respond to this objection at section D.1.a) below.

4. Claims 2-303 stand rejected under 35 U.S.C. § 112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respond to this rejection at section D.1.b) below.

5. Pending claims of the group 2 to 303 using the terms, *inter alia*, 'program' and 'programming' and derivatives thereof, stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which Applicants regard as the invention. Applicants respond to this rejection at section D.1.c) below.

6. The pending claims of the group 2 to 303, which use terms having different descriptions/meanings with respect to the '81 and '87 disclosures, are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respond to this rejection at section D.1.d) below.

7. Claims 2 to 303 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants respond to this rejection at section D.2.a) below.

8. The pending claims, of the group of 2 to 303, that are directed to digital related processes and apparatus are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicants respond to this rejection at section D.2.c)(1) below.

9. Those of the pending claims of the group of 2 to 303, that are directed to data (and terms derived from data, i.e. datum, indicia, etc.) and related processes and apparatus, are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicants respond to this rejection at section D.2.c)(2) below.

10. Claims 2 to 303 are rejected under 35 U.S.C. § 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Applicants respond to this rejection at section D.2.d) below.

11. Claims 2 to 303 stand rejected under 35 U.S.C. § 102 (a,b,e) as being clearly anticipated by patents '490 and '725. Applicants respond to this rejection at section E.1 below.

12. Claims 2 to 303 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by "The Weather STAR" device/receiver. Applicants respond to this rejection at section E.2 below.

13. Claim 2 stands rejected under 35 U.S.C. § 102 (b) as being anticipated by Flynn. Applicants respond to this rejection at section E.3 below.

14. Claim 3 stands rejected under 35 U.S.C. § 102 (b) as being anticipated by the article "Videocassette Banks Automate Delayed Satellite Programming" by Chiddix. Applicants respond to this rejection at section E.4 below.

15. Claim 8 stands rejected under 35 U.S.C. § 102 (b) as being anticipated by the article "Videocassette Banks Automate Delayed Satellite Programming" by Chiddix. Applicants respond to this rejection at section E.5.

16. Claim 25, and claim 26 dependent therefrom, stand rejected under 35 U.S.C. § 102 (b) as being anticipated by Kamishima et al. Applicants respond to this rejection at section E.6 below.

17. Claim 31 stands rejected under 35 U.S.C. § 102 (b) as being anticipated by Kamishima et al. Applicants respond to this rejection at section E.7.

18. Claim 64 stands rejected under 35 U.S.C. § 102 (b) as being anticipated by Corey. Applicants respond to this rejection at section E.8 below.

19. Claim 2, and claims 225-227 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the publication "Automatic Storage and Retrieval of Videotaped Programs" by Kazama et al. Applicants respond to this rejection at section F.1.

20. Claim 3, and claims 4-7, 27-30, 32-35, 37-40, 42-45, 47-63 and 66-68 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over

the article "Videocassette Banks Automate Delayed Satellite Programming" by Chiddix in view of Germany. Applicants respond to this rejection at section F.2 below.

21. Claim 8, and claims 9-12, 69, 71-74, 76-79, 81-84, 86, 89-92, 94-97, 99-102, 104-107, and 109-114 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the article "Videocassette Banks Automate Delayed Satellite Programming" by Chiddix in view of Germany. Applicants respond to this rejection at section F.3 below.

22. Claim 3, and claims 4-7, 27-30, 32-35, 37-40, 42-45, 47-63 and 66-68 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Keiser in view of Vikene. Applicants respond to this rejection at section F.4 below.

23. Claim 13, and claims 14-17, 115-118, and 121-152 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over conventional teletext distribution systems as evidenced by the article "Teletext Signal Generation Equipment And Systems" by Mothersole and the British patent document to Betts. Applicants respond to this rejection at section F.5 below.

24. Claim 18, and claims 19-22 and 153-188 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the article "Videocassette Banks Automate Delayed Satellite Programming" by Chiddix in view of Germany. Applicants respond to this rejection at section F.6 below.

25. Claim 18, and claims 19-22 and 153-188 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over conventional teletext distribution systems as evidenced by the article "Teletext Signal Generation Equipment And Systems" by Mothersole and the British patent document to Betts. Applicants respond to this rejection at section F.7 below.

26. Claim 23, and claims 24 and 189-224 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over conventional teletext distribution systems as evidenced by the article "Teletext Signal Generation Equipment And Systems"

by Mothersole in view of the publication "CBS/CCETT North American Broadcast Teletext Specification." Applicants respond to this rejection at section F.8 below.

27. Claim 31, and claims 236-238 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood et al. Applicants respond to this rejection at section F.9 below.

28. Claim 41, and claims 241-248 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood et al. Applicants respond to this rejection at section F.10 below.

29. Claim 46, and claim 249 dependent therefrom, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood et al. Applicants respond to this rejection at section F.11 below.

30. Claim 2 to 303 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 89/02682. Applicants respond to this rejection at section F.12 below.

31. Pending claims of the group, 2 to 303, that are directed to processes of controlling cable head end processes and monitoring of those processes and combined medium presentation, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenberg in view of Galumbeck et al. Applicants respond to this rejection at section F.13 below.

32. Pending claims of the group 2 to 303, that are directed to, *inter alia*, processes of controlling broadcast subscriber stations, including decrypting, processing, storing, generation, and monitoring of those processes and combined medium presentation, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jeffers et al. Applicants respond to this rejection at section F.14 below.

33. Pending claims of the group 2 to 303, that are directed to, *inter alia*, processes of controlling affiliate stations and processes and monitoring of those processes and combined medium presentation stand rejected under 35 U.S.C. § 103(a) as being

unpatentable over Haselwood et al. in view of the publication "System and Apparatus for Automatic Monitoring Control of Broadcast Circuits" by Yamane et al. and the Australian patent document no. 74,619 to Hetrich. Applicants respond to this rejection at section F.15 below.

34. Pending claims of the group, 2 to 303, that are directed to, *inter alia*, processes af controlling subscriber station processes and monitoring of those processes and of combined medium presentation and processes, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over either one of the common subject matter suggested by Campbell et al. in view of at least one or more of: Breeze "Television Line 21 Encoded Information And It's Impact on Receiver Station Design," Schnee, and Zaboclicki. Applicants respond to this rejection at section F.16 below.

35. Pending claims of the group 2 to 303 that are directed to, *inter alia*, either process of controlling affiliate stations and processes and monitoring of those processes and combined medium presentation or processes of controlling subscriber stations and method and process for monitoring and providing combined medium presentations, or both, that fall out each particular determined group members of the group of claims described in rejection above, the groups are provisionally rejected further in view of one or more of some thirty-six listed references. Applicants respond to this rejection at section F.17 below.

36. All claims are subject by the Office to an adminstrative requirement based on the nonstatutory double patenting rejection based on a judicially created doctrine preventing the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. Applicants respond to this requirement at section G below.

37. All pending claims stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over at least one or more of Applicants' issued U.S. patents: 4,694,490, 4,704,725, 4,965,825, 5,109,414, 5,233,654

and 5,335,277 in view of some thirty-six listed references. Applicants respond to this rejection at section H below.

38. The basis for the amendment to page 37 of the specification is rejected. Applicants respond to this rejection at section I below.

39. A new oath or declaration in compliance with 37 C.F.R. § 1.67(a) identifying this application by application number and filing date is required. Applicants respond to this requirement at section J below.

B. Applicants Have Completed the Consolidation of Related Applications as Agreed

The Examiner notes that Applicants and the PTO have agreed to consolidate Applicants' related co-pending applications. The Examiner requests clarification as to when Applicants intend to complete the consolidation. The consolidation of the claims from Applicants' 329 co-pending application into 78 actively prosecuted application is complete. Accordingly, Applicants request prompt action on the merits for those of the 78 actively prosecuted application in which the PTO has not yet issued an Office Action.

C. Response to Request to Identify the Most Relevant Art

The Examiner specifically requests Applicants to identify the most relevant art, in the information disclosure statements, to the pending claims. Applicants submitted a large number of references in the Information Disclosure Statements because a large portion of the information cited by the Applicants was brought to the Applicants' attention in the discovery processes in a previous litigation in the United States District Court for the Eastern District of Virginia (*Personalized Mass Media Corp. v. The Weather Channel, Inc.* Docket No. 2:95 cv 242) and an investigation by the International Trade Commission (*In the Matter of Certain Digital Satellite System (DSS) Receivers And Components Thereof,* No. 337 TA 392, which was directed to U.S. Pat. No. 5,335,277) regarding claims in the Applicants' related issued patents. The documents

listed in the Information Disclosure Statement were cited during the previous litigation/investigative proceedings by the alleged infringers in the aforementioned proceedings as being relevant and material to patentability of the claims in the related patents. Notwithstanding the large number of references cited in the information disclosure statements, the Patent and Trademark Office rules, as codified at 37 C.F.R. §§ 1.97 and 1.98, do not impose on Applicants the duty to identify the *most* relevant art in an information disclosure statement. However, in order to expedite the prosecution of this application, Applicants have reviewed the art cited against specific claims in this application and Applicants related applications that were consolidated into this application. Applicants are not aware of any specific art cited in the information disclosure statements that is more relevant than the art that has been cited by the Examiner against the presently pending claims and their predecessors in the related application that were consolidated into this application.

D. Response to Rejections under 35 U.S.C. § 112

1. The Claims Comply With 35 U.S.C. § 112, second paragraph

a) Informalities in the disclosure stand corrected

The Examiner kindly noted informalities in claim 8 and claim 15. Applicants request amending these claims as suggested by the Examiner. All informalities found in the disclosure have been corrected by the amendments above.

b) Claims 2-303 are Definite as Amended

Claims 2-303 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Each pending claim as set forth above meets the specific requirements of 35 U.S.C. § 112, second paragraph. Each of the Examiner's concerns are addressed below.

(1) Claim 2

The Examiner asserts "said signal" in line 9 has multiple antecedent bases because it is not clear if it refers back to the inputted signal on line 3 or the transmitted signal of line 8. Each reference is to the same signal. Line 3 recites "inputting a signal." Line 8 recites "transmitting said signal." Line 8 thus references the signal originally introduced in line 3. "Said signal" in line 9 refers to the signal originally recited in the inputting step of line 3 and also referred to in the transmitting step of line 8. "Said signal" in line 9 does not have multiple antecedent bases as asserted by the Examiner. One of ordinary skill in this art will readily understand that the signal recited in line 9 is the same signal recited in both lines 3 and 8.

The Examiner asserts "an identifier associated with said signal" is indefinite because it suggests that the recited method actually requires a step for associating an identifier with the signal. The Examiner requests clarification. The claim language provides all clarification required. The claim does not include a specific step for associating an identifier with the signal. The claim does require selecting either the code or an identifier associated with the signal. This step is clear. Each step of the claimed method is positively recited.

(2) Claims 3-5

The Examiner asserts "said information transmission" has multiple antecedent bases because it is not clear if it refers back to the received information transmission of line 4 or to the communicated information transmission of lines 4 and 5. Claim 3 sets forth "receiving an information transmission and communicating said information transmission." The information transmission is received and communicated. The claim does not recite multiple information transmissions. There is not therefore multiple antecedent bases for the term "said information transmission" as recited in claims 3, and claims 4, 5 and 28 dependent therefrom.

The Examiner asserts that the recitation "which is effective to control" appears to suggest that the claimed method requires a step of controlling. The claimed method includes no specific step of controlling. The claimed method includes a step of receiving a control signal. The claim further sets forth certain properties of the control signal, specifically that the control signal is effective to control.

Additionally, the Examiner questions how a control signal that is "effective to control" differs from a control signal that actually controls. This appears to be a repetition of the same issue addressed immediately above. Applicants thus reiterate that the claim includes no specific step of controlling. The claim does include the step of receiving a control signal and sets forth properties of the control signal. The Examiner does not demonstrate indefiniteness by questioning how a control signal that is effective to control differs from a control signal that actually controls. Section 2173.02 of the M.P.E.P. states "The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available." The claim language meets the requirements for definiteness.

The Examiner suggests that the term "said information transmission" in line 14 should be changed to read "said communicated information transmission." To advance the prosecution of this application, Applicants have amended claim 3 as suggested by the Examiner.

The Examiner asserts that "said control signal" in line 14 has multiple antecedent basis because it is not clear whether it refers back to the received control signal of line 6 or the communicated control signal of line 13. Line 13 refers to the control signal originally set forth in line 6. Claim 3 does not recite multiple control signals. Therefore, there are no multiple antecedent bases for the term "said control signal" recited in claim 3, and claims 4 and 27 dependent therefrom.

The Examiner interprets the recitation of a first receiver station and a second receiver station and asserts that under his interpretation the disclosure does not support a first and second receiver station. The disclosure fully supports the claims for the reasons set forth in Section 2.a) below.

(3) Claim 8

The Examiner objects to the phrase "effective to control" for the same reason as in claim 3. This phrase is definite for the reasons discussed above with respect to claim 3.

The Examiner asserts claim 8 is confusing because it is not clear whether the second information transmission is sequentially received and encoded or is received and encoded in parallel process. As both embodiments cited by the Examiner are definite, claim 8, which is generic to the embodiments cited by the Examiner, remains definite.

(4) Claim 9

The Examiner asserts the phrase "directs a processor" suggests a step of directing a processor. Claim 9 includes no specific step of directing a processor. Claim 9 does set forth a property of the control signal, *i.e.* that the control signal directs a processor to process and generate. This property of the control signal is set forth in a definite manner.

The Examiner asserts the phrase "generate a video display" suggests a step of generating a video display. Claim 9 includes no specific step of generating a video display. The control signal is defined as including the property of directing a processor to generate a video overlay.

The Examiner asserts the phrase "that is presented" suggests a step of presenting. Applicants request amending claim 9 to delete the phrase "that is presented" and insert in its place "for presentation" to clearly set forth a property of the video overlay.

The Examiner asserts the phrase "said second signal having effect" suggests a step of using the control signal to effect. The Examiner asserts the phrase "query a remote station" suggests a step of querying a remote station. The Examiner also asserts the

phrase "receive said supplemental data" suggests receiving supplemental data. Applicants request amending claim 9 to clearly set forth a property of the second signal. Claim 9 as amended will set forth that the second signal is for use at a user station to either query a remote station or receive supplemental program material.

(5) Claim 12

The Examiner asserts the term "one of" at line 8 is misdescriptive because both of the audio and video signals are output. However, the term "one of a video image and audio" is used consistently throughout claims 8-12 including on line 8 of claim 12. Claim 12 set forth an embodiment of the method including a step of communicating a program unit identification code and storing the program identification code at a storage location associated with the "one of a video image and audio." This claim limitation is entirely compatible with output of audio and video signals.

(6) Claim 13

The Examiner asserts the term "capable of" is confusing because it is not clear if the computer actually performs the recited processing or only has the potential of performing the processing. The claim sets forth "a computer capable of processing" data. The computer has the potential to perform the processing. The claim does not require a step of processing by the computer.

(7) Claim 14

Applicants request amending claim 14 to clearly set forth properties of the data originally set forth is claim 13. In claim 14 as amended the term "said data" clearly refers to the data originally introduced in claim 14. Claim 14 as amended does not include a specific step of embedding. Claim 14 as amended clearly sets forth properties of the data set forth in claim 13.

(8) Claim 15

Claim 15 further describes the data receiver stations originally set forth in claim 13. Claim 15 clearly sets forth that two of the data receiver stations store a control signal. Claim 15 includes no specific step of storing.

(9) Claim 16

Applicants request amending claim 16 to clearly set forth properties of the control signal originally set forth in claim 13. Claim 16 as amended does not include a specific step of responding or controlling. Claim 16 as amended clearly sets forth properties of the control signal set forth in claim 13.

(10) Claim 17

The Examiner asserts the term "said data" has multiple antecedent bases when referenced back to claim 13. Claim 13 originally sets forth data at line 1 and refers back to this data in lines 7, 10, and 14. Only one set of data is set forth in claim 13. The term "said data" in claim 16, thus, does not have multiple antecedent bases.

(11) Claim 18

The Examiner asserts that this method claim suggests the steps of controlling a first programming receiver station, controlling a second programming receiver station, transmitting mass medium programming, and identifying and processing portions of mass medium programming. Claim 18 does not include these steps. Claim 18 does set forth properties of a control signal that is received. The control signal is effective to control a first programming receiver station to transmit mass medium programming and to control a second programming receiver station to identify and process at least a portion of mass medium programming. Each step of the claimed method is positively recited.

(12) Claims 19-22

The Examiner asserts claims 19 and 22 require similar clarifications as do claims 14-17. Sections (7)-(10) above fully address these clarifications. Applicants request amending claim 19-22 in a similar manner as claims 14-17.

(13) Claim 23

The Examiner asserts the term "is addressed" does not have proper antecedent basis. The term "is addressed" refers to no previous step of addressing and, thus, requires no antecedent basis. Claim 23 sets forth a designation signal designating a receiver station to which a control signal is addressed. This phrase clearly sets forth a property of the designation signal.

The Examiner asserts that claim 23 suggests the steps of controlling a first receiver station, controlling a second receiver station, transmitting an information transmission, and identifying and processing portions an information transmission. Claim 23 does not include these steps. Claim 23 does set forth properties of a control signal that is received. The control signal is effective to control a first receiver station to transmit an information transmission and to control a second receiver station to identify and process at least a portion an information transmission. Each step of the claimed method is positively recited.

(14) Claim 24

The Examiner asserts claim 24 suggests a step of embedding that is not positively recited. Claim 24 sets forth that a portion of either a control signal or designation signal is embedded in the non-visible portion of a signal. Claim 24 sets forth a property of either the control signal or the designation signal. Claim 24 does not include a specific step of embedding. Each step of the claimed method is positively recited in claim 24.

(15) Claim 25

Applicants request amending claim 25. Claim 25 as amended introduces a transmitter in lines 10 and 11. This amendment addresses the lack of antecedent basis for the term "said transmitter," which was noted by the Examiner. This amendment also addresses the Examiner's concerns regarding the second occurrence of the term "transmitter." Claim 25 as amended also labels the network introduced in line 1 as a communications network so as to be distinguishable from the output network introduced in line 7. This amendment addresses the problem of multiple antecedent bases for the term "said network" in line 25.

The Examiner asserts claim 25 suggests, without positively reciting, the steps of communicating a selected portion of information. Claim 25 does not include a specific step of communicating. Claim 25 sets forth selecting at least a portion of information communicated either to or from a transmitter. Claim 25, thus, sets forth a property of the portion of information that is selected.

The Examiner suggests changing "to determine" in line 13 to read "determining" so as to positively recite a step of determining. Claim 25 does not specifically include separate steps of comparing and determining. Rather claim 25 recites a step of comparing and sets forth that the step of comparing is to determine proper transmission of a signal.

The Examiner asserts the term "said signal" in line 13 has multiple antecedent bases. A signal is introduced in the inputting step on line 4. This signal is referred to in the transmitting step on line 9. Claim 25 does not recite multiple signals. Accordingly, the term "said signal" does not have multiple antecedent bases.

(16) Claim 26

The Examiner asserts the term "said signal" in line 10 has multiple antecedent bases. A signal is introduced in the inputting step on line 4. This signal is referred to in the transmitting step on line 9. Claim 26 does not recite multiple signals. Accordingly, the term "said signal" does not have multiple antecedent bases.

(17) Claim 27

The Examiner asserts "said control signal" in line 1 has multiple antecedent basis because it is not clear whether it refers back to the received control signal of claim 3, line 6, or the communicated control signal of claim 3, line 13. As noted above in Section (2) above, claim 3 does not recite multiple control signals. Therefore, there are no multiple antecedent bases for the term "said control signal" recited in claim 27.

Applicants request amending claim 27 in order to set forth clearly a property of the control signal. Claim 27 as amended includes no specific steps of controlling, comparing, or transmitting. Claim 27 does set forth that the control signal is for controlling a first receiver station. Applicants request amending claims 28-30, 32-35, 37-40, 42-45 and 47 in a similar manner to clearly set forth properties of the control signal.

(18) Claim 28

Applicants request amending claim 28 to clearly set forth that the control signal in for controlling transmission. This amendment addresses the Examiners concern that claim 28 is misdescriptive. Applicants also request amending claims 29, 30, 32-35, 37-40, 42-45 and 47 in a similar manner to clearly set forth properties of the control signal.

The Examiner asserts "said information transmission" has multiple antecedent bases because it is not clear if it refers back to the information transmission previously recited in claim 28 or to an information transmission recited in claim 3. As discussed in Section (2) above, claim 3 does not recite multiple information transmissions. Claim 28 refers to this information transmission twice. Claim 28 does not introduce a new information transmission. There are not therefore multiple antecedent bases for the term "said information transmission" as recited in line 3 of claim 28.

(19) Claim 31

The Examiner asserts "said signal" has multiple antecedent bases because it is not clear to which state of the signal "said signal" at line 12 refers. The term "said signal"

does not refer to a state of the signal, but rather refers to the signal itself. There is not, therefore, multiple antecedent bases for "said signal" as there are not multiple signals set forth in claim 31.

The Examiner requests functional language recited in the claim be put into a step format. The metes and bounds of the claim are clearly set forth to one of ordinary skill in the art. For instance, the Examiner refers to the language "for gathering" as requiring a distinct step. Claim 31 does not require a separate step of gathering. Claim 31 rather sets forth a distinct step of inputting and further sets forth the function of the step of inputting. Separate steps of inputting and gathering are not required by claim 31.

(20) Claim 32

Applicants request amending claim 28 to clearly set forth that the control signal in for controlling output. This amendment addresses the Examiners concern that claim 32 is misdescriptive. Applicants also request amending claims 33-35, 37-40, 42-45 and 47 in a similar manner to clearly set forth properties of the control signal.

(21) Claim 36

Applicants request amending claim 36 to positively recite a first portion of a signal. This first portion is subsequently referenced throughout the claim thus eliminating any antecedent basis problems with "said portion."

The Examiner requests functional language recited in the claim be put into a step format. The metes and bounds of the claim are clearly set forth to one of ordinary skill in the art by the claim as amended above. For instance, the Examiner refers to the language "to gather" as requiring a distinct step. Claim 36 does not require a separate step of gathering. Claim 36 rather sets forth a distinct step of processing and further sets forth the function of the step of processing. Separate steps of processing and gathering are not required by claim 36.

The Examiner asserts that claim 36 is misdescriptive because only the portion of the signal is transmitted. Claim 36 does not limit what portions of the signal are transmitted to the receiver station. Claim 36 does set forth that a first portion of the signal is transmitted according to a schedule. This step of transmitting does not conflict with the recited step of processing the signal to gather a statistic or with the recited step of identifying either the signal or the content of the signal at the receiver station.

(22) Claim 41

Applicants request amending claim 41, line 10, to refer to said plurality of signals as suggested by the Examiner. "Said plurality of signals" finds antecedent basis in line 1 of this claim.

(23) Claim 48

The Examiner asserts claim 46 becomes confusing and indefinite when it introduces further relationships regarding the signal and schedule in lines 8-10. Claim 48 depends from claim 3 and is only four lines in length. Claim 48 does not reference a relationship between a signal and schedule. Claim 48 does not reference a relationship between a plurality of signals and an identifier.

(24) The Remaining Claims

With regard to claims 6, 7, 10, 11, 46 and 47, the Examiner has failed to state any specific reason for this rejection under 35 U.S.C. § 112, second paragraph. With regard to claims 49-303, the Examiner has merely asked Applicants "review all of the claims and to correct any section 112-2 problems which are similar to those which have been exemplified above." When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. A rejection fails to comply with Section 132 when it is so vague that the applicant cannot recognize and seek to counter the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333, 1337 (Fed.

Cir. 1990). The rejections of claims 6, 7, 10, 11, 46, 47, and 49-303 are not sufficiently specific that Applicants can understand the grounds for rejection and properly respond. As the Examiner has failed to state a valid rejection against claims 6, 7, 10, 11, 46, 47, and 49-303, no response is required. Notwithstanding, in compliance with the Examiner's request Applicants have reviewed the claims and request entry of the above amendments in order to correct all problems Applicants have discovered.

c) The terms "Program" and "Programming" are definite

The Examiner asserts a rejection against "pending claims of the group 2 to 303 using the terms, *inter alia*, 'program' and 'programming' [and] derivatives thereof . . . as being indefinite for failing to point out and distinctly claim the subject matter which applicants regards as the invention." When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. "If the invention is not considered patentable, or not considered patentable as claimed, the claims or those considered unpatentable will be rejected." 37 C.F.R § 104(c)(1). The Examiner must at a minimum enumerate the claims rejected. This is confirmed in M.P.E.P. § 707.07(i), which states "each claim should be mentioned by number, and its treatment or status given." As the Examiner has failed to designate the claims rejected by number, this rejection is impermissibly vague and prevents Applicants from recognizing and seeking to counter the grounds of rejection for each claim.

Applicants believe that in general the use of the terms "program" and "programming" in the claims is proper for the following reasons. The Examiner suggests that the Applicants' use of the term "programming" in the pending claims is "repugnant to the normal/usual use of said terminology." The Examiner further suggests that, in the '81 disclosure (in the Parent Application No. 317,510 filed November 3, 1981), the Applicants defined the term "programming" as "everything transmitted over television or radio intended for communication of entertainment or to instruct or inform". The

Examiner relies on the definition of programming set forth in the abstract of the disclosure. "The purpose of the Abstract is to enable the Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. The abstract shall not be used for interpreting the scope of the claims." 37 C.F.R. § 1.72(b). By properly making reference to the whole specification, the Examiner will get a more complete understanding of Applicants' meaning of the term "programming".

"It is the object of this invention to unlock this potential [for a significant increase in the scope and scale of multi-media and multi-channel presentations] by the development of means and methods which permit progra[m]ming to communicate with equipment that is external to television and radio receivers, particularly computers and computer peripherals such as printers." "It is the further purpose of this invention to provide means and methods to process and monitor such transmissions and presentations at individual receiver sites and to control, in certain ways, the use of transmitted progra[m]ming and the operation of certain associated equipment. Such receiver sites may be stations or systems that intend to retransmit the progra[m]ming, or they may be end users of the progra[m]ming. The present invention contemplates that certain data may be encrypted and that certain data collected from such processing and monitoring will automatically be transfer[r]ed to a remote geographic location or locations." U.S. Patent No. 4,694,490, col. 1, ll. 22-24, 36-53.

Applicants contend that the definition of "programming", to include television and radio entertainment information, computer programming and data to control execution of a processor, in the present application is clearly supported by the definition of the term "programming" in the '81 disclosure.

Applicants assert that their use of the term "programming" in the present application is both consistent with normal/usual usage and with the parent application. *Webster's Seventh New Collegiate Dictionary* (1977) gives separate definitions for the

noun and verb forms of "programming". The noun form of "programming" is defined with a series of gerunds:

> "**programming** *or* **programing** ... *n* : the planning, scheduling, or performing of a program."

And the noun form of "program", which includes the word "programming" in its definition, is:

> "**program** *or* **programme** ... *n* ... **1** ... : a public notice **2 a :** a brief usu. printed outline of the order to be followed, of the feature or features to be presented, and the persons participating (as in a public exercise, performance, or entertainment) **b :** the performance of a program; *esp* : a performance broadcast on radio or television **3 :** a plan or system under which action may be taken toward a goal **4 :** CURRICULUM **5 :** PROSPECTUS, SYLLABUS **6 a :** a plan for the programming of a mechanism (as a computer) **b :** a sequence of coded instructions that can be inserted into a mechanism (as a computer) or that is part of an organism **7 :** matter for programmed instruction"

The verb form of "programming" is defined with the verb form of "program" and is:

> "**program** *also* **programme** *vt* **-grammed** *or* **-gramed; -gramming** *or* **-graming 1 a :** to arrange or furnish a program of or for : BILL **b :** to enter in a program **2 :** to work out a sequence of operations to be performed by (a mechanism) : provide with a program **3 :** to insert a program for (a particular action) into or as if into a mechanism"

Applicants assert that these definitions are entirely consistent with Applicants' present and parent application. For example, the '81 disclosure describes a well known television program, "Wall Street Week", at U.S. Patent No. 4,694,490 (hereinafter '490) col. 19 l. 5 through col. 20 l. 7. At '490 col. 19 l. 48-53 and col. 19 l. 63 through col. 20 l. 7, Applicants disclose a sequence of operations performed by a mechanism (a computer) which includes a first output ('490 col. 19 l. 65 through col. 20 l. 2) and a second output ('490 col. 20 l. 6). This sequence of operations is performed in response to "several instruction signals" ('490 col. 19 l. 46) followed by "an instruction signal" ('490 col. 19 l. 60). (That Applicants' "signals" are coded is disclosed at '490 col. 11 lines 12-14 where a

code reader passes the signals to a computer.) Applicants assert that these disclosed instruction signals ('490 col. 19 l. 48-53 and 60-67) clearly meet the dictionary definition of a program--"a sequence of coded instructions that can be inserted into a mechanism (as a computer)"--and are, in fact, what is now, and was in 1981, widely known among those of considerably less than ordinary skill in the art as "a computer program" and as "computer programming".

Applicants also assert that the first output ('490 col. 19 l. 65 through col. 20 l. 2) and a second output ('490 col. 20 l. 6), *by themselves,* also meet the dictionary definition of a program--"the performance of a program". Furthermore, Applicants contend that they constitute both computer programming *and television programming.* Being generated and outputted by a computer qualifies them as computer programming. Being displayed as an integral part of a television program--"Wall Street Week" ('490 col. 19 l. 45, 54-60, and col. 19 l. 67 through col. 20 l. 2)--qualifies them as television programming.

Finally, Applicants assert that this disclosure is in no way inconsistent with the meaning given to "programing" in the Abstract of Applicants' parent disclosure--"everything transmitted over television or radio intended for communication of entertainment or to instruct or inform." Applicants clearly disclose that the signals are "instruction signals embedded in the 'Wall Street Week' programing transmission" ('490 col. 19 l. 43-44) and that "These signals instruct" ('490 col. 19 l. 48) and "This signal instructs" ('490 col. 19 l. 64-65).

For the reasons set forth above, Applicants assert that the term "programming" as used throughout the instant application to include what are commonly known as television, radio and computer programming is clearly and unambiguously supported by the specification as filed and withdrawal of the corresponding rejection is respectfully requested.

d) The Claim do not have Terms with Conflicting Definitions from the Parent Disclosure and the Instant Disclosure

The Examiner alleges "terms having different definitions from '87 to '81 are considered vague and indefinite, including the terms, *inter alia*, 'information', 'instruction', 'programming', 'program', 'data', 'digital' and derivatives of each term, etc." The Examiner provides no support for this allegation. Applicants believe there is no conflict between the use of these terms in the parent application filed November 3, 1981 and the instant specification. The Examiner provides no evidence to the contrary. The claim language "programming" is addressed in Section c) above. The claim language "data" and "digital" is addressed in Sections 2.c)(2) and (1) below. Applicants submit that any rejection purported to be asserted with respect to the claim terms "information" or "instruction" is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection. Applicant respectfully request that this rejection under 35 U.S.C. § 112, second paragraph, be withdrawn.

2. Response to Rejections under §112, first paragraph

a) Response to Written Description Rejections

In the Office Action, the Examiner rejects claims 2 to 303 under 35 U.S.C. § 112, first paragraph for incorporating subject matter not described in the specification as filed in such a manner as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, were possessed of the claimed invention. Applicants firmly believe that the instant specification and respective priority documents, all of which are substantially identical, each describe the subject matter of the pending claims. Thus, in Applicants' view, the pending claims fully comply with the requirements of the first paragraph of 35 U.S.C. § 112. Accordingly, Applicants respectfully request the withdrawal of the rejections of claims 2 to 303 under 35 U.S.C. § 112, first paragraph.

(1) Response to Problems

The following section responds to the Final Office Action's section A) "The problems:" on pages 15-20.

With respect to the Final Office Action's "sub-examples" and "super combinations," Applicants show exactly where the currently pending claims derive their support required under 35 U.S.C. § 112, first paragraph, in the attached Appendix A.

With respect to the Final Office Action's statement of "the ranges of devices/techniques in present claims represent obvious implementations of that which was originally disclosed, and are not properly supported by the original disclosure under 112(1)," Applicants maintain their position that the claim language is supported by disclosure as shown in Appendix A. Applicants may use any language they see fit to claim their invention as long as it is supported by the disclosure under 35 U.S.C. § 112, first paragraph.

With respect to the Final Office Action's statement of alternative recitations that recite a plurality of alternative embodiments, Applicants' position is that every alternative is supported by their disclosure. There are general two types of alternative language used to claim the invention that Applicants feel are necessary for clarification at this point. First, there are equivalents between the recited alternative elements. Using the same example the Final Office Action does, wherein, "one of a switch and a computer," refers to a single element that could be a switch, a computer, or both. For example, Applicants have supported the switch as matrix switch 75, and the computer as controller/computer 73, and furthermore teach in the disclosure, "Controller/computer, **73**, has means for communicating control information with matrix switch, **75**,...,"(column 11 lines 44-46). Applicants have supported these equivalent alternative elements in Appendix A.

Second, and most obvious, are a list of recited alternative elements. Again, using the same example the Final Office Action does, wherein, "two of video, audio and data programming," refers generally to transmitted electronic media. Again, Applicants have

supported the list of alternative elements in Appendix A. Again, Applicants may use any language they see fit to claim their invention as long as it is supported by the disclosure under 35 U.S.C. § 112, first paragraph.

With respect to the Final Office Action's allegation of Applicants apparent inconsistent use of the same terminology, combined with use of terminology which does not have clear antecedent basis to the original disclosure, Applicants show exactly where the instant claims derive the support required under 35 U.S.C. § 112, first paragraph in Appendix A.

Additionally, With respect to the Final Office Action's section B) on pages 20 to 22, regarding the alleged failure of claims to be supported to 1981 disclosure, Applicants refer to the support tables of Appendix A.

(2) Response to Specific Queries of the Office Action

The combination of the specification support of Appendix A and the Section b), Summary of the Structure of the Instant Disclosure, thoroughly responds to every specific inquiry of the Final Office Action with respect to 35 U.S.C. § 112, first paragraph.

b) Summary of the Structure of the Instant Disclosure

To "connect the limitations of the pending claims with the support...found in the original disclosure," as found on pages 19 to 20, Applicants additionally provide the following explanation of the correlation of various sections of the disclosure thereby supporting the limitations of the instant claims.

Applicants' specification is a single cohesive document with each successive section and example extending and developing the preceding disclosure. The various disclosures, examples, and subsystems disclosed within the specification are clearly intended to be integrated into general working systems, methods and apparatus. Applicants' specification is very carefully constructed to provide clear and unequivocal

contextual relationship between the various inventive concepts, processes and apparatus that Applicants disclose.

At the outset, Applicants focus on the importance of *integrating* functionalities and state:

> It is the object of this invention to unlock this great potential in the fullest measure by means of an *integrated system* of programming communication that joins together all these capacities most efficiently.

(Spec. at 3 ll. 30-33)(emphasis added).

In "Background of the Invention" (Spec. at 1-11), Applicants list a multitude of problems and limitations in the prior art for which this integrated system provides valuable solutions. Applicants *also introduce focal opportunity:*

> Today great potential exists for combining the capacity of broadcast communications media to convey ideas with the capacity of computers to process and output user specific information. One such combination would provide a new radio-based or broadcast print medium with the capacity for conveying general information to large audiences--e.g., "Stock prices rose today in heavy trading,"--with information of specific relevance to each particular user in the audience--e.g., "but the value of your stock portfolio went down." (Hereinafter, the new media that result from such combinations are called "combined" media.)
>
> Unlocking this potential is desirable because these new media will add substantial richness and variety to the communication of ideas, information and entertainment. Understanding complex subjects and making informed decisions will become easier.

(Spec. at 2 ll. 8-24.)

Applicants explicitly acknowledge that to succeed in the fullest measure means solving many technical problems as well as providing for a broad spectrum of subscriber information demands and equipment capacities:

> To unlock this potential fully requires means and methods for combining and controlling receiver systems that are now separate--television and computers, radio and computers, broadcast print and computers, television and computers and broadcast print, etc.
>
> But it requires much more.

> To unlock this potential fully requires *a system with efficient capacity* for satisfying the demands of subscribers who have *little receiver apparatus and simple information demands* as well as subscribers who have *extensive apparatus and complex demands.* It requires capacity for transmitting and organizing vastly more information and programming than any one-channel transmission system can possibly convey at one time. It requires capacity for controlling intermediate transmission stations that receive information and programming from many sources and for organizing the information and programming and retransmitting the information and programming so as to make the use of the information and programming at ultimate receiver stations as efficient as possible.

(Spec. at 2 l. 25 through p. 3 l. 8)(emphasis added).

To disclose how the integrated system overcomes the identified limitations, solves the problems, and realizes this potential fully, requires ***step-by-step teaching*** of separate elements – methods as well as apparatus – of Applicants' disclosed system. At each new step, the ***contextual relationship*** of the new teaching to earlier teachings ***is explicitly stated.*** Applicants highlight below how this step-by-step teaching carries the relationships of the various separate elements throughout the disclosure.

(1) "One Combined Medium" (pages 19-28)

In a section, (Spec. at 19-28), entitled "One Combined Medium," (Spec. at i l. 16 and p. 19 l. 5), which focuses on the subscriber station of Fig.1, Applicants begin by teaching "a *video/computer* combined medium," (Spec. at 19 l. 6)(emphasis added). A local image – Fig. 1A (*See* Spec. at 25 ll. 9-14) – is provided at the subscriber station and combined with a remotely supplied video image – Fig. 1B (*See* Spec. at 25 ll. 30-33) – in order to deliver a combined image of Fig 1C (*See* Spec. at 26 ll. 8-15). (Simultaneously, user specific local images are provided at other subscriber station and combined with the remotely supplied video image – (*see,* specification at page 26 lines 16-19.)

(As an example of Applicants' step-by-step teaching approach, not until a section entitled "Audio Overlays and Other Overlays," which begins on page 463, are Applicants prepared to focus on Fig. 7D and teach "a radio/computer combined medium," (Spec. at 464 l. 6), or teach "a broadcast print and computer combined medium," (Spec. at 466 l.

20), or focus on Fig. 7E and teach "the full combined medium of television and computers," (Spec. at 468 ll. 10-11).

In the "One Combined Medium" section, Applicants disclose concepts of "a combining operation" and "synchronization". For example: "subscriber station apparatus ... execute *a combining operation* in *synchronization*...." (Spec. at 26 ll. 21-22)(emphasis added).

Applicants also teach *order* of operations. For example, one operation. (Spec. at 24 ll. 5-27), may provide the local image–Fig. 1A–at the subscriber station; a different operation, (Spec. at 26 ll. 4-11), may deliver the combined image–Fig. 1C. ("One Combined Medium" also discloses that a third operation, (Spec. at 27 ll. 3-7), may terminate delivery of the combined image.)

More broadly, in "One Combined Medium" Applicants teach *important concepts regarding instructions* and, *most importantly,* ***timing.*** For example:

> Decoder, 203, is **pre**programmed to detect digital information .... Microcomputer, 205, is **pre**programmed ... to respond ... to *instruction signals* embedded in the ... programming transmission.

(Spec. at 21 ll. 14-24)(emphasis added).

> In said series in full--and in any one or more subsequent series of instructions--*particular instructions* are *separated,* as may be required, *by time periods when no instruction* that controls the microcomputer, 205, of any station *is transmitted* which periods allow sufficient time for the microcomputer, 205, of each and every subscriber station *to complete functions* controlled by previously transmitted instructions and commence waiting for a subsequent instruction, in a waiting fashion well known in the art, before receiving a *subsequent instruction.*

(Spec. at 22 ll. 9-18)(emphasis added).

> ... *an instruction ... causes* subscriber station apparatus to execute a combining operation in *synchronization* ....

(Spec. at 26 ll. 21-22)(emphasis added).

> In addition, personalized programming is displayed *only when* it is of specific relevance to the conventional television programming of said combined medium. In the example, each subscriber views a graphic presentation of his own portfolio

> performance information *as soon as* it becomes specifically relevant to graphic information of the performance of the market as a whole. Prior to its time of specific relevance, no personalized information is displayed (despite the fact that said graphic information of the performance of the market as a whole is displayed). And said personalized information is displayed *only for so long as* it remains specifically relevant. *As soon as* its specific relevance terminates, its display terminates.

(Spec. at 27 ll. 21-33)(emphasis added).

In the "One Combined Medium" section, Applicants demarcate a critical type of instruction with a definition.

> Hereinafter, an instruction ... that causes subscriber station apparatus to execute a combining operation ... is called a "combining synch command."

(Spec. at 26 ll. 20-23)(emphasis added).

Furthermore, in "One Combined Medium," Applicants teach a temporal relationship of combining synch commands that have specific functionalities. A ***first combining synch command,*** (*See* Spec. at 24 ll. 5-27 and p. 26 ll. 23-28), causes the local image–Fig. 1A–to be provided at the subscriber station. A ***second combining synch command,*** (*See* Spec. at 26 ll. 1-8 and 20-23), causes display of the combined image–Fig 1C. (Furthermore, a ***third combining synch command***, (*See* Spec. at 27 ll. 3-7), terminates display of the combined image.) In their step-by-step teachings, Applicants ***provide clear contextual pertinence of subsequent teachings by making explicit reference to*** the "One Combined Medium" disclosure, and especially by ***establishing the temporal relationships of subsequent teachings*** to the Fig.1C combining and the functionalities provided by these combining synch commands.

(2) "The Signal Processor" through "The Normal Transmission Location" (pages 28-86) and "The Preferred Configuration of Controller, 39, and SPAM-Controller, 205C." (pages 156-162)

In the specification at pages 28-86 and pages 156-162, Applicants teach apparatus and signaling techniques that are *used throughout the remainder of Applicants' disclosure.* Applicants teach Signal Processor, (Spec. at 28-34 and Fig.1); Signal

Decoder, (Spec. at 34-38 and Figs.2A-2C); and Signal Processor System, (Fig.2D), apparatus. *Applicants also teach in detail* ***the controller*** (Spec. at 156-162 and Fig.3A) ***apparatus of Signal Decoders*** (e.g., controller, 39, in Fig. 2A). Applicants teach signaling techniques in sections entitled "The Composition of Signal Information ... Commands, Information Segments, and Padding Bits," (Spec. at 43-49), The Organization of Message Streams ... Messages, Cadence Information, and End of File Signals," (Spec. at 59-69), "Detecting End of File Signals," (Spec. at 69-84), and "The Normal Transmission Location," (Spec. at 84-86).

(3) "Operating Signal Processor Systems ... Introduction" through "Operating Signal Processor Systems ... Signal Record Transfer" (pages 86-278)

At specification pages 86-278, Applicants teach methods of operating the signal processing apparatus of pages 28-86 and 156-162 explicitly within the context of the "One Combined Medium" disclosure. For example:

> Five examples illustrate methods of operating signal processing system apparatus. Each focuses on subscriber stations where the signal processor system of Fig. 2D and *the combined medium apparatus of Fig. 1* share apparatus and operate in common. Fig. 3 shows one such subscriber station.

(Spec. at 86 l. 32 through p. 87 l. 2)(emphasis added).

> All five examples describe signal processing variations that relate to *the Fig. 1C combining of "One Combined Medium."*

(Spec. 87 ll. 30-32)(emphasis added).

> Each example focuses on the processing of the three signal messages of the *Fig. 1C combining.* The information of said messages include three combining synch commands and one program instruction set. The first message is of the information associated with the *first combining synch command.* Said first command has a "01" header, an execution segment, and a meter-monitor segment of six fields. Said command is followed by an information segment that contains said program instruction set, and said information segment is followed by an end of file signal. Said first command addresses URS microcomputers, 205, and causes said computers, 205, to load and run the program instruction set transmitted in the information segment.

(Spec. at 89 ll. 3-16)(emphasis added).

> The second message is of the information associated with the *second combining synch command.*

(Spec. at 90 ll. 4-5)(emphasis added).

> The third message is of the information associated with the *third combining synch command.*

(Spec. at 90 ll. 28-29)(emphasis added).

Repeatedly throughout each of the five examples, reference is made to pertinent "One Combined Medium" disclosures. For example, in Example #1, (Spec. at 93-143), Applicants state:

> OPERATING SIGNAL PROCESSOR SYSTEMS ... EXAMPLE #1.
>
> The first example elaborates on the Fig. 1C combining described above in "One Combined Medium" and focuses on the operation of decoder, 203, SPAM-controller, 205C, and microcomputer, 205, on the execution of controlled functions, and on the the use of cadence information to organize signal processing. The example begins as divider, 4, starts to transfer to decoder, 203, in its outputted composite video transmission, the embedded binary information of the first message.

(Spec. at 93 ll. 20-29.)

> As described in "One Combined Medium" above, loading and running said program instruction set causes microcomputer, 205, (and URS microcomputers, 205, at other subscriber stations) to place appropriate Fig. 1A image information at particular video RAM.

(Spec. at 107 ll. 20-24.)

> In the foregoing fashion and as described in "One Combined Medium" above, said transferred information of the second combining synch command causes microcomputer, 205, to combine the programming of Fig. 1A and of Fig. 1B and transmit said combined programming to monitor, 202M, where Fig. 1C is displayed.

(Spec. at 125 l. 31 through p. 126 l. 1.)

Fig. 3 (which is the combination of the apparatus of Figs. 1 and 2D (*See* Spec. at 86 l. 32 *et seq.*)) and Fig. 3A (the controller in the decoders 30 and 203 in Fig. 3, (*See* Spec. at 156 l. 18 *et seq.*)) depict the receiver station at which all five examples occur. Example #1 discloses in detail transfer of SPAM messages to addressed apparatus at the

receiver station as well as the execution of controlled functions in response to the messages. Example #2 discloses selective decryption of content of the SPAM message stream at decryptor 10 of signal processor 200. Example #3 discloses the creation of signal records at signal processor 200 based on monitoring information contained in the message stream that delivers the Fig. 1C image. Example #4 discloses functioning of the Fig. 3A controller 39 in decoder 203, including selective decryption at decryptor 39K and additional processing of the message stream content to create signal records. Example #5 discloses the functioning of signal processor 200 components (e.g., 6, 1, 2, 3, 30 and 40) to gather data on the availability of programming (see, for example, page 269 line 6).

Pages of the specification 271-278, state: "In examples #3, #4, and #5, the transmission of SPAM signal information causes signal processor, 200, to transfer signal record information by telephone to remote station computers," (Spec. at 271 l. 33 *et seq.*) and teach this process in detail.

(4) "Regulating the Reception and Use of Programming ... including Example #6" and "... Example #7" (pages 278-312) as well as "... More on Example #7 ... Combining ... Automatically to the Computer System ..." (pages 427-447)

At pages 278-312 of the specification, Applicants teach methods of governing the reception and use of programming and relate to, for example, "digital ... television transmissions," (*See* Spec. at 279 l. 14). Example #6 discloses a variant of the type of decryption techniques disclosed in examples #2 and #4 to regulate the use of control signal, in particular. Focusing on the receiver station of Fig. 4, (*See* Spec. at 286 l. 6 through p. 288 l. 20), example #7 discloses a multistage process of selectively decrypting digital components (video and audio) of a "television signal," (*See* Spec. at 288 ll. 32-33). The multistage process includes selective transfer, *e.g.*, by tuning or switching, (Spec. at 295 ll. 6-30). At pages 427-447, additional regulating concepts are taught which are variants to the disclosure of pages 287-312, and which rely on disclosures (e.g.,

intermediate transmitter station automation, (Spec. at 324-390)) which occur in the specification between pages 312 and 427.

Just like every one of examples #1-#5, examples #6 and #7 (Spec. at 287-312 and 427-447) are disclosed within the context of the "Wall Street Week" program. With respect to example #6, see, for example, page 281 lines 7-9. With respect to example #7, see, for example, page 289 lines 12-27 and page 429 lines 26-33. The examples also disclosed functionally and temporally with respect to earlier disclosures such as in "One Combined Medium" at pages 19-28 (*e.g.*, Spec. at 311 ll. 10-16 and p. 447 ll. 8-14).

(5) "Monitoring Receiver Station Reception and Operation" (pages 312-324)

At pages 312-324 of the specification, Applicants teach methods of monitoring the reception and operation of a receiver station using Fig. 5. Fig. 5 shows an extended system of monitoring decoder, controlled by signal processor 200, each monitoring an associated device and communicating monitor information to signal processor 200. This disclosure is also set within the context of the "Wall Street Week" program (*See* Spec. at 322 ll. 26-27), references Fig.1B (Spec. at 322 l. 35), and cites previously defined portions of example #3, which concern monitoring (*see* Spec. at 322 ll. 30-35, p. 174 ll. 21-23, and p. 190 ll. 14-16).

(6) "Automating Intermediate Transmission Stations" (pages 324-390) including "Example #8" (pages 340-354)

At pages 324-390 of the specification, Applicants teach automation of intermediate stations. The teachings relate to forms of programming that include, but are not limited to, television, radio, and data and that apply to all manner of broadcast and cablecast operations (*see* Spec. at 324 ll. 11-17, p. 339 l. 9 through p. 340 l. 10, and p. 389 l. 14 through p. 390 l. 11). Figs. 6A-B illustrate Applicants' teachings in the setting of a cable television system. Generally speaking, apparatus of Figs. 6A-B are described at page 324 line 18 through page 328 line 17 and page 337 lines 1-24, and the basic

methods of operation of the station (e.g., operating according to a complete programming schedule) are disclosed at page 325 line 17 through page 326 line 18 and page 328 line 8 through page 331 line 16. Organizing units of prerecorded programming (e.g., to play according to schedule) is disclosed at page 331 line 17 through page 334 line 6. Playing according to schedule is disclosed at page 334 line 7 through page 336 line 35. Monitoring station operations is disclosed, *inter alia,* (e.g., to provide auditable proof-of-performance) at page 337 line 25 through page 339 line 8. In their teachings of organizing, playing and monitoring, Applicants introduce exemplary programming, including **program unit Q** which is a specific focus of later disclosures in Applicants' specification. Applicants teach the subject matter of pages 324-390 following pages 86-324 to make clear that the earlier teachings apply at intermediate transmission stations as well as end user stations, (*e.g.*, Spec. at 339 l. 29 through p. 340 l. 10 and p. 389 l. 31 through p. 390 l. 11).

In example #8, Applicants teach a distribution station, such as a satellite uplink, which transmits control signals and units of programming, such as television spot commercials, to a plurality of automated intermediate transmission stations as taught at pages 324-340 (Spec. at 340 l. 13 through p. 345 l. 28). The intermediate transmission stations receive the control signals, (*e.g.*, Spec. at 342 l. 18 through p. 343 l. 17 and p. 344 ll. 28-32), and the programming, and store and retransmit selected exemplary television spot commercials – **most focally program unit Q,** (*e.g.*, Spec. at 343 ll. 5-17, p. 351 l. 27 through p. 352 l. 30, and p. 353 ll. 6-28), with each intermediate station operating independently and retransmitting its selected exemplary commercial(s) at different times and in different channels (Spec. at 343 l. 5 through p. 344 l. 22 and p. 345 l. 29 through p. 354 l. 3). The intermediate stations automatically retain and communicate proof-of-performance records to one or more remote auditing stations, (*see* Spec. at 341 ll. 11-15 and p. 352 l. 18 through p. 354 l. 3).

(7) Examples #9 and #10 (pages 354-390 & 469-516): "Automating Intermediate ... Station Combined Medium Operations" (pages 354-374 of Example #9) and "Network Control of Intermediate Generating and Embedding" (pages 374-390 of Example #10)

In examples #9 and #10, at pages 354-374 of the specification for example #9 and pages 374-390 for example #10, Applicants teach automation of an intermediate station in creation and transmission of combined medium programming ("of the same sort as 'Wall Street Week'" at page 355 lines 1-2). At pages 469-516, Applicants teach the corresponding operations of a plurality of end user stations to which the intermediate station transmits the programming so created. Both examples focus on **Program unit Q** (*see* Spec. at 354 l. 35 through p. 355 l. 14, p. 374 l. 29 through p. 375 l. 12, p. 469 ll. 1-2, and p. 478 ll. 23-26). In each example, Applicants teach a sequence of messages and carefully **name each message in the sequence with a name that ties together the transmitter functions of pages 354-390 and the corresponding end user station functions of pages 469-516 unambiguously.** (Appendix D, a Glossary of Defined Terms, is included herewith identifying certain terms and defined by their use in the instant specification.) For example, the "program-instruction-set message (#9)" is defined at page 371 lines 17-19 and transmitted at page 372 lines 4-6; the "program-instruction-set message (#10)" is defined at page 385 lines 14-16 and transmitted at page 386 lines 12-14: the "program-instruction-set message (#10)" is received at the end user station(s) at page 484 lines 5-14; and at page 514 lines 8-13, 17 and 23-24 Applicants teach that the "program-instruction-set message (#9)" "[causes] the same functioning" at the end user station(s) as the "program-instruction-set message (#10)". Some of the other messages in the sequence are named at page 372 lines 20-35, page 387 lines 19-31, page 490 lines 24-34, page 492 lines 1-11, page 495 lines 1-10, etc., and page 514 lines 8-31.

At pages 354-374 in example #9, Applicants teach local **origination,** (Spec. at 374 l. 6 and p. 368 ll. 3-4), of combined medium programming at an automated transmitter station (which is also an intermediate transmission station). **Program unit Q,**

which is delivered to and handled at the intermediate station according to the teachings of pages 324-354, (Spec. at 355 ll. 15-17), is disclosed as television-based combined medium programming, (Spec. at 354 l. 35 through p. 355 l. 14), that contains embedded signals, (*e.g.*, Spec. at 356 l. 9 through p. 358 l. 21, p. 367 ll. 30-33, p. 369 ll. 4-6, and p. 372 ll. 22-35). As one example of the creation of programming, at pages 359 line 14 through page 365 line 21, Applicants teach automation of the intermediate station to create a set of instructions (called "PROGRAM.EXE" at page 365 line 8 and defined as the "'program-instruction-set of Q'" at page 365 lines 18-21) and to transmit the instructions, (Spec. at 371 l. 11 through p. 372 l. 6), in a "program-instruction-set message," (Spec. at 371 ll. 17-19 and p. 372 ll. 4-6).

At pages 374-390 in example #10, Applicants teach **network origination** (Spec. at 374 ll. 20-31) of combined medium programming and focus especially on the creation of programing *in the network* at automated intermediate stations as well as at an origination station. **Program unit Q** in example #10 is the same program unit Q as in example #10 (Spec. at 375 ll. 7-8). In example #10 Applicants disclose the same creation of programming as in example #9. For example, page 377 line 4 through page 382 line 14 corresponds to page 358 line 26 through page 366 line 18; "PROGRAM.EXE" appears at page 379 line 24, page 380 line 18, and page 382 line 3; definitions of the "'program-instruction-set of Q.1'" and "'program-instruction-set of Q.2'" occur at page 378 lines 23-28 and at page 380 lines 20-24 respectively; and generated instructions are transmitted at page 385 line 9 through page 386 line 14 in a "program-instruction-set message." But in contrast to example #9 which focuses on origination at just one transmitter station, in example #10 Applicants teach a plurality of automated intermediate station operating in parallel under control of a network origination station to generate and transmit control instructions messages (*see* Spec. at 59 ll. 29-33) to different end user stations. Furthermore, Applicants teach that the control instructions differ from each

other (e.g., the PROGRAM.EXE files in the messages (Spec. at 484 ll. 9-10 and 17-18) differ (Spec. at 379 ll. 5-31 and p. 380 ll. 7-20)).

The end user station functionalities of examples #9 and #10 are disclosed at pages 469-516. Applicants teach a series of combined medium outputs (*e.g.*, Spec. at 491 ll. 10-16 and p. 506 ll. 17-21) in response to the transmitted control instructions or "messages" (Spec. at 484 ll. 5-18, p. 485 ll. 14-18, p. 490 l. 24 through p. 491 l. 16, and p. 505 l. 32 through p. 506 l. 21). Furthermore, the information outputted in the combined medium outputs differs from end user station end user station (Spec. at 491 ll. 10-29 and p. 506 ll. 17-31). Applicants also teach in examples #9 and #10 *other functionalities, such a viewer interactivity and interactivity with stations remote from the end user stations,* that are discussed more fully below.

(8) Automating Ultimate Receiver Stations (pages 390-427) ... Regulating Station Environment (pages 396-406) ... Coordinating a Stereo Simulcast (pages 406-419) ... Receiving Selected Programming (419-427)

Focusing on Fig. 7, Applicants teach, at pages 390-396 of the specification, apparatus and functionalities of an end user station including computing, signal processing (e.g. Figs. 2-2D), switching, decrypting, etc., in addition to receivers, storage devices, and various speaker and display devices. On page 396 is additional disclosure associated with the preferred controller, 39, taught at pages 156-162. At pages 396-406, Applicants disclosure concepts associated with broadcast/cablecast control of end receiver station heating/cooling and mechanical systems as well as interactivity associated with, for example, utilities meter reading. At pages 406-419, Applicants teach coordinating separate systems under broadcast/cablecast control – in this case, controlling devices associated with television and radio to present a stereo simulcast – as well as monitoring the devices in order to provide records of the performance of the stereo simulcast and of other presentations at the end user station to a remote data collection

locally provided information (*e.g.*, Fig. 1A) combined with the remotely supplied information (*e.g.*, Fig. 1B).

(b) Controlling Combined Medium Operations (pages 447-457)

At pages 447-457 of the specification, Applicants teach the functioning of "One Combined Medium" (Spec. at 19-28) within the context (*e.g.*, Spec. at 451 ll. 1-3) of functions that (i) precede (Spec. at 447 l. 26 through p. 451 l. 11) the beginning of the "One Combined Medium" programming (i.e., "Wall Street Week") and (ii) follow (Spec. at 451 l. 4 through p. 457 l. 10) the display of Fig. 1C. Applicants teach **providing and updating viewer data (e.g., stock portfolio data) before** the start of, for example, "Wall Street Week" and controlling viewer stations to generate and combine into the "One Combined Medium" programming **a series of local images with each image combined within its specific time interval of relevance.** Applicants also teach **error correction techniques for controlling viewer station computers that function incorrectly or inefficiently.**

(c) Transmitting Program Instructions Sets (pages 457-463)

Having taught generation of more than one image, inefficiency, and error correction, Applicants teach methods, at pages 457-463, for timely provision of software for controlling the generating and combining of local images (e.g., Fig. 1A) into the "One Combined Medium" programming. These include varying size of the bandwidth in which the software is located, as well as the location(s) and the timing pattern(s) in which the software is transmitted.

(10) Audio Overlays and Other Overlays (pages 463-468)

Focusing on Fig. 7D, Applicants teach a radio combined medium at pages 464-466 of the specification, including local selection at a radio receiver station of user specific audio and insertion of the selected audio into radio programming supplied from a

station. At pages 419-427, Applicants teach storing identifiers (e.g., of the stocks in a stock portfolio) and controlling the receiver station (e.g., tuning cable converter 222 at page 423 lines 11-13) to receive identified news at to process the news (*e.g.*, Spec. at 425 ll. 30-34) according to pre-entered instructions of a user.

(9) More Disclosure in the Context of "Wall Street Week" (pages 427-469)

Having taught basic concepts of apparatus and automation of ultimate receiver stations, Applicants teach more advanced concepts within the context of "Wall Street Week" and its many attendant earlier teachings. Applicants' objective, in so doing, is to **teach how the various teachings, attendant to "Wall Street Week",** ***relate to each other.***

(a) More on Example #7 (pages 427-447)

At pages 427-447 of the specification, Applicants elaborate on the earlier "Regulating Systems" (Spec. at 288 l. 22) teachings of example #7 (Spec at 288-312), which are summarized in section (4) above. Applicants teach the network described in "One Combined Medium" (Spec. at 20 l. 28 through p. 21 l. 4) as a **self structuring, parallel processing computing system.** This teaching follows Applicants teaching of "Automating Intermediate Transmission Stations" (Spec. at 324 l. 7 and pp. 324-390) in order to **elaborate on intermediate transmission station** (*e.g.*, see references to Fig. 6 at page 429 line 29 and page 325 lines 15-16) **automation** within the context of example #7 (*e.g.*, Spec. at 429 l. 26 through p. 435 l. 15) and the teachings attendant to "Wall Street Week" generally. Applicants teach the selective processing of incoming programming in accordance pre-stored "program-unit-of-interest information" (*e.g.*, Spec. at 428 ll. 21-26) that enables different viewer stations to handle differently (e.g., store/display, automatically authorize purchase of) the "Wall Street Week" programming. Applicants teach storage of programming (Spec. at 445 ll. 27-32) that includes (*e.g.*, Fig. 1C) the

remote radio transmitter. Applicants teach a broadcast print combined medium at pages 466-468, including local selection at a broadcast print receiver station of user specific text and insertion of the selected text into broadcast print programming supplied from a remote transmitter. Focusing on Fig. 7E, Applicants teach at page 468 a television combined medium that includes customized audio as well as customized video.

(11) Examples #9 and #10 Continued – Viewer/Listener Station Functionalities (pages 469-516)

To teach the viewer/listener station processing of **program unit Q** in examples #9 and #10 (*see* section (7) above), Applicants focus on the "ultimate receiver station" (defined at page 40 line 35 through page 41 line 1) of Fig. 7 (*e.g.*, Spec. at 390 ll. 30-31 and p. 470 l. 9). Having taught the concepts summarized in section (10) above, Applicants can teach receiver stations interconnecting "apparatus ... in the fashion of Fig. 7E" (Spec. at 480 ll. 16-17). In this environment, Applicants teach local interactions (e.g., by humans at page 471 lines 6-18 and page 508 line 19 through page 509 line, and by equipment at, for example, page 484 lines 7-18 and page 509 line 35 through page 511 line 22) result in interaction between local station and remote station equipment (*see* Spec. at 509 l. 35 through p. 510 l. 4). Drawing on virtually every previous teaching, Applicants disclose at pages 469-516 generation of a series of outputs (*e.g.*, Spec. at 485 ll. 14-18) that include video (*e.g.*, Spec. at 491 ll. 10-29), audio (Spec. at 491 l. 30 through p. 493 l. 22), and print (Spec. at 496 l. 3 through p. 499 l. 3). Applicants also disclose error correction, as summarized in the section above, at page 514 line 32 through page 516 line 13. Furthermore, Applicants disclose at page 514 lines 8-31 that the viewer/listener stations perform substantively identically in examples #9 and #10.

(12) Preprogramming Receiver Station Operating Systems (pages 516-532) and The Preferred SPAM Header (pages 532-533)

At pages 516-532 of the specification, Applicants teach one master control station (*e.g.*, Spec. at 518 ll. 17-26) transmitting operating system instructions to and programming transmitter and receiver station widely dispersed over a geographic area with the operating systems. Each station to be programmed selects those operating system instructions that apply to its particular type and version of reprogrammable device(s) (*e.g.*, Spec. at 522-524), routes the instructions to memory of the reprogrammable device(s), and commences operating under control of the operating system instructions. At pages 532-533, Applicants further focus on the desirability of flexibility for system expansion and teach that the preferred SPAM header is one byte in length.

(13) The General Case ... Summary Example #11 (pages 533-557)

While Applicants could summarize their disclosure by simply stating that each method and feature of their disclosed "unified system" (Spec. at 533 l. 24) could be combined with every other method and feature (on its face an apparent tautology), they choose, instead, to provide one final example which explicitly relies on the entirety of foregoing disclosure. In example #11, programming is distributed in a time cycling fashion (*e.g.*, Spec. at 536 l. 11 *et seq.* and p. 556 ll. 12-14) from a European master control station via satellite (Spec. at 536 ll. 4-6) to national intermediate transmission stations (Spec. at 534 ll. 26-31) which transmit to local intermediate transmission station (Spec. at 535 ll. 18-22) which, in turn, transmit to ultimate receiver stations (Spec. at 534 ll. 1-4) where programming is displayed (*e.g.*, Spec. at 552 ll. 20-30) and information is communicated responsively (*e.g.*, Spec. at 555 ll. 14-29) back to the European master control station and the national and local intermediate stations (Spec. at 555 l. 26 through p. 556 l. 9).

The European master control station controls the national intermediate stations (*e.g.*, Spec. at 541 l. 29 through p. 542 l. 2 and p. 543 ll. 20-29) to control the local intermediate stations (*e.g.*, Spec. at 544 l. 23 through p. 545 l. 11) to control the ultimate receiver stations (*e.g.*, Spec. at 547 ll. 19-26 and p. 548 ll. 1-6). User specific information is generated at each ultimate receiver station (*e.g.*, Spec. at 548 ll. 18-22 and p. 550 ll. 30-31), stored at each ultimate receiver station (*e.g.*, Spec. at 551 ll. 11-14), explained in combined medium output (Spec. at 552 ll. 17-30), and communicated to the European master control station and the national and local intermediate stations (Spec. at 555 l. 26 through p. 556 l. 9). At points in the disclosed example #11 cycle where functions are described in general, reference is made to earlier sections of the specification that teach the detail of how the function is performed. For example, at page 537 lines 6-17, the European master control station is explicitly disclosed as preprogramming the national and local intermediate stations and the ultimate receiver stations in the fashion summarized in the above section.

(14) Conclusion

The various disclosures, examples, and subsystems disclosed within the specification are clearly intended to be integrated into general working systems, methods and apparatus. As shown above, Applicants' specification is very carefully constructed to provide clear and unequivocal contextual relationship between the various inventive concepts, processes and apparatus that Applicants disclose. These relationships are reflected in the support for the claim language provided in Appendix A.

Applicants submit Appendix A in response to the rejection under 35 U.S.C. § 112, first paragraph, on pages 15-301 of the Final Office Action. Appendix A demonstrates where each pending claim derives its specific support from both the instant specification and the disclosure of the 1981 parent specification as published in U.S. Patent 4,694,490.

In addition Applicants submit Appendix C, which demonstrates the correlation between Applicants' 1981 priority disclosure and the instant specification.

c) The Specification Enables One Skilled in the Art to Make and Use the Invention

The Examiner rejects the pending claims under the enablement requirement of 35 U.S.C. § 112, first paragraph. The Examiner concludes that the handling/transmission of "digital television signals" is not enabled by the specification. The Examiner also concludes that "data" could not be processed in the same manner as television and radio programming units. However, these conclusions are not directed specifically to the invention claimed by the presently pending claims.

The test for enablement is whether one reasonably skilled in the art could make or use the invention from the disclosure in the application coupled with information known in the art without undue experimentation. *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 U.S.P.Q.2d 1217, 1223 (Fed. Cir. 1988). The invention is defined by the claims presented in the instant application. The Examiner concludes that the terms "digital" and "data" are not enabled. The Examiner fails to consider how these terms define Applicants' invention in the instant claims. The Examiner has failed to include any analysis of whether any particular claim is supported by the disclosure. The PTO bears the initial burden of setting forth a reasonable explanation as to why it believes that the scope of protection provided by each claim is not adequately enabled by the description of the invention provided in the specification of the application. *In re Wright,* 999 F2d 1557, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993). The Examiner has failed to consider the scope of protection provided by the claims in his analysis under the enablement requirement. Also as discussed above in Section 1.c) above, the Examiner must enumerate which claims stand rejected. The Examiner has failed to address any particular claim. Therefore, the Examiner has failed to establish a *prima facie* rejection under the enablement requirement of 35 U.S.C. § 112, first paragraph.

(1) "Digital" is Enabled by the Specification

"The pending claims, of the group 2 to 303 that are directed to *digital* related processes and apparatus are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification is such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected' to make and/or use the invention." The Examiner asserts the specification fails to disclose the manner in which digital television signals are formatted and processed. The Examiner acknowledges that the transmission of digital television signals was known in the art. The rejection is based on the assertion that the transmission of digital television signals was not interchangeable with the transmission of analog television signals and the Examiner's conclusion that Applicants' disclosure assumes that they are interchangeable. This reasoning is an insufficient basis for the rejection of Applicants claims for at least two reasons. First, as discussed above the Examiner's discussion of the transmission and formatting of digital television signals is not directed to the scope of any particular claim. Second, the means needed to format and transmit digital television signals in a manner compatible with all the methods and apparatus disclosed in the specification was known by those skilled in the art.

Applicants recognize that the invention defined by the claims is compatible with the use of digital television signals. The handling and transmission of digital television signals in a manner compatible with the methods described in the specification were well know to those skilled in the art as of the filing date of the instant application. The Examiner requests Applicants to submit references which show that the means needed to format and transmit "digital television signals" were known to those skilled in the art. Applicants submit that U.S. Patent No. 3,906,480 issued on September 16, 1975 to Schwartz et al. discloses the means needed to format and transmit "digital television signals" in a manner compatible with the methods described in the specification. Schwartz et al. discloses decomposing vectors to be displayed into elemental vector

segments that are *encoded* as vector symbols. Schwartz et al. further discloses that the system has the capability of storing each vector in a compacted (i.e. compressed) form while retaining its attributes and identity in storage. Applicants contend that the specification discloses the usage of digital data in a television signal similar to that which is disclosed in Schwartz et al. The means needed to format and transmit digital television signals in this manner were well known to those skilled in the art as of the filing date of this application.

The Examiner has failed to construe the claims in his analysis under the enablement requirement. The Examiner directs his analysis to the term "digital television signals," but fails to demonstrate how this analysis applies to the pending claims. Furthermore, means compatible with Applicants' disclosure of formatting and transmitting digital television signals were well known in the art, contrary to the Examiner's assertion. For at least these reasons, Applicants respectfully request the withdrawal of this rejection under the enablement requirement of 35 U.S.C. § 112, first paragraph.

(2) "Data" is Enabled by the Specification

"Those of the pending claims of the group of 2 to 303, that are directed to *data* (and terms derived from data, i.e. *datum, indicia,* etc.) and related processes and apparatus, are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention." The Examiner notes that the specification discloses that SPAM messages can be embedded within the "normal locations" of "other media" such as broadcast data or print. The Examiner also notes that the specification discloses that print or data information is transmitted within SPAM messages. Applicants acknowledge the disclosure from line 6 of page 85 through line 11 of page 86 of the instant specification,

which describes that SPAM signals may accompany conventional print or data programming. It is unclear to what specific disclosure the Examiner refers by the specific citations recited on pages 310, 311 and in the footnote on page 313 of the Office Action. The Examiner asserts that these disclosures are so contradictory that one of ordinary skill in the art would need to resort to undue experimentation to practice the invention. Applicants firmly assert that a thorough reading of the specification shows that the disclosure is in no way contradictory with respect to the term "data."

Applicants disclose the use of SPAM signals to control and coordinate a wide variety of subscriber stations. (Spec. at 40.) The information of SPAM signals includes data, computer program instructions, and commands. (Spec. at 41 ll. 20-21.) One typical example of the composition of a SPAM signal is shown in Figure 2E. (Spec. at 44.) The specification clearly discloses that SPAM signals may include information segments. (Spec. at 44 l. 11.) Program instruction sets, intermediate generation sets, other computer information, and data may all be transmitted in information segments. (Spec. at 53 l. 34 through p. 54 l. 2.) Applicants disclose that SPAM signals can be embedded in many different locations in electronic transmissions. (Spec. at 85 ll. 6-7.) In broadcast and data communications transmissions, SPAM signals can accompany conventional print or data programming in the conventional transmission stream. (Spec. at 85 ll. 20-23.) More precisely, the conventional print or data information may be transmitted in an information segment of a SPAM signal. (Spec. at 86 ll. 1-11.) Thus, SPAM signals can be included in broadcast print and data communication transmissions. Also, conventional data information can be transmitted in an information segment of a SPAM signal. There is no conflict in this disclosure. Any person skilled in the art would be enabled to use SPAM signals to control and coordinate a subscriber station through a broadcast data communication transmission by reading the instant specification. After thoroughly reading the specification any person skilled in the art would require no undue experimentation to practice Applicants' claimed invention.

The Examiner asserts that Applicants' disclosure did not describe a system or method which formatted, transmitted, received, processed, or displayed data program units under control of associated SPAM messages because data program units were actually transmitted with the SPAM messages. The Examiner extends this conclusion to hold that the disclosure fails to set forth the means or steps needed to make or use systems in which data is manipulated in the same manner as described for television and radio television program units. The Examiner's conclusion fails to follow from the stated facts. Data program units transmitted with SPAM signals can be manipulated under the control of the associated SPAM signal. The fact that data are disclosed as transmitted in the information segment of SPAM signals in no way conflicts with disclosed control of such transmissions through the use of the SPAM signals.

For at least the above reasons, Applicants submit that the subject matter defined by the claims is described in the specification in such a way to enable any person skilled the art to make or use Applicants' invention. Accordingly, Applicants respectfully request that the rejection of these claims be withdrawn.

d) The Best Mode of Practicing the Claimed Invention Contemplated by Applicants is Disclosed in the Specification

Claims 2 to 303 stand rejected under 35 U.S.C. § 112, first paragraph, because it is asserted that the best mode contemplated by the inventor has not been disclosed. The first paragraph of 35 U.S.C. § 112 provides that the specification "shall set forth the best mode contemplated by the inventor of carrying out his invention." A two step inquiry is used to determine if the best mode requirement is met. *Chemcast Corp. v. Arco Industries Corp.*, 913 F.2d 923, 16 U.S.P.Q.2d 1033,1036 (Fed. Cir. 1990) First, the Examiner must determine whether, at the time Applicants filed their patent application, they knew of a mode of practicing the claimed invention that they considered to be better than any other. *Id.* Second, the Examiner must determine whether the disclosure is adequate to enable one skilled in the art to practice the best mode, if one was known to

Applicants. *Id.* This inquiry is designed to preclude applicants from concealing preferred embodiments of their inventions which they have conceived. *Id.* The Examiner has failed to apply this test in rejecting the pending claims under the best mode requirement. The Examiner has failed to present evidence that Applicants concealed any embodiment of their invention which they considered to be better than the embodiments disclosed in the instant specification. Therefore, Applicants respectfully request the withdrawal of the rejection of claims 2 to 303 under the best mode requirement of 35 U.S.C. § 112, first paragraph.

The Examiner alleges that nesting of detectors, signal processors, monitors, decryptors, decoders, buffers, controllers and micro-computers is the basis of evidence that Applicants concealed the best mode. To the contrary, the extensive disclosure of many configurations of detectors, signal processors, monitors, decryptors, decoders, buffers, controllers and micro-computers that Applicants contemplated is evidence that the best mode is in fact disclosed. The Examiner has failed to identify any alleged best mode that was not disclosed by Applicants. "Because not complying with the best mode requirement amounts to concealing the preferred mode contemplated by the applicant at the time of filing, in order to find that the best mode requirement is not satisfied, it must be shown that the applicant knew of and concealed a better mode than he disclosed." *Randomex Inc. v. Scopus Corp.*, 849 F.2d 585, 7 USPQ2d 1050, 1052 (Fed. Cir. 1988)(quoting *Hybritech Inc. v. Monoclonal Antibodies, Inc* ., 802 F.2d 1367, 1384-85, 231 USPQ 81, 94 (Fed. Cir. 1986)). The Examiner fails to show that Applicants *knew of and concealed* a better mode than the various embodiments disclosed in the instant specification.

The Examiner believes, "The very fact that applicants keep pointing to the parent '490 disclosure for demonstrating support to the instant disclosure in response to Section 112 rejections to the instant disclosure, is itself evidence of concealment." The Examiner concludes that the use of omitted '81 disclosure to understand the instant

disclosure is impermissible and falls subject to the possibility of circumventing Section 112. This conclusion is incorrect both factually and legally. First, use of the parent disclosure filed November 3, 1981, (the '81 disclosure) is not required to understand the instant disclosure. The subject matter of the '81 disclosure is included in the instant specification. Second, the '81 disclosure has issued as U.S. Patent No. 4,694,490. "Invalidity for violation of the best mode requires intentional concealment of a better mode than was disclosed. That which is included in an issued patent is, *ipso facto*, not concealed." *Brooktree Corp. v. Advanced Micro Devices Inc.* 977 F2d 1555, 24 U.S.P.Q.2d 1401, 1415 (Fed. Cir. 1992)(citations omitted).

The Examiner compares the present case to *In re Ruschig*, 379 F.2d 990, 154 U.S.P.Q. 118 (C.C.P.A. 1967). The misapplication of *Ruschig* by the Examiner cannot substitute for the two step inquiry to be applied under a proper best mode analysis. The reasoning applied in *Ruschig* is inapplicable to the best mode rejection made by the Examiner in the instant case. First, the issue in *Ruschig* was whether a claim was supported by the disclosure of the appellants' application. *Id.* 154 U.S.P.Q. at 119. The analysis in *Ruschig* by the United States Court of Customs and Patent Appeals does not address the best mode requirement. Second, the *Ruschig* analysis is inapplicable to the facts in the instant case. In *Ruschig*, a claimed specific species of a genus of chemical compounds was not named or identified by formula in the specification. *Id.* 154 U.S.P.Q. at 121. The issue was whether the disclosure of the genus along with teachings of a number of other species would lead one skilled in the art to the claimed species. The Court held that the disclosure in *Ruschig* failed to include guides directing the selections required to arrive at the claimed compound rather than any of the many other compounds that could also be made within the genus. *Id.* 154 U.S.P.Q. at 123. The Court employed the analogy of travel through a forest. The Court found that the appellants were pointing to trees, but that there were no blaze marks to single out the trees that led to the unnamed compound. *Id.* 154 U.S.P.Q. at 122. The facts in *Ruschig* are in direct contrast to the

present case. In *Ruschig* the claim limitation was *not* named or identified in the specification. In the instant case the Examiner acknowledges that Applicants' disclosure addresses the variety of claim limitations included in the claims. As the claim limitations are addressed by the instant specification, no blaze marks are required to lead a skilled artisan through a forest of possibilities to find them.

The Examiner asserts that he cannot recognize the pending claimed processes within the "woods." The PTO has previously made vague blanket rejections under 35 U.S.C. § 112, first paragraph, that assert practically every pending claim limitation is unsupported by the specification. In response, Applicants have provided detailed support for each claim limitation. Applicants find it disingenuous for the Examiner to now assert that somehow Applicants have erred by describing numerous specific claim limitation details (*i.e.* pointing to the trees that make up the Examiner's woods.)

The Examiner has failed to apply the proper analysis in rejecting claims 2-303 under the best mode requirement of 35 U.S.C. § 112. The Examiner has failed to determine whether Applicants knew that one mode was better than another at the time the application was filed. Thus, the Examiner cannot determine whether the disclosure is adequate to enable one of ordinary skill in the art to practice the best mode. As the Examiner has failed to establish a proper rejection under the best mode requirement, Applicants respectfully request that these rejections under 35 U.S.C. § 112, first paragraph, be withdrawn.

E. Response to Rejections under 35 U.S.C. § 102

1. Rejection under 102 (b) over Applicants' U.S. Pat. Nos. '490 & '725

Claims 2 to 303 stand rejected under 35 U.S.C. § 102(b). The Examiner asserts that claims 2-303 are clearly anticipated by Applicants' own U.S. Patent Nos. 4,694,490 and 4,704,725. The instant application claims the benefit under 35 U.S.C. § 120 of the

filing date of both the previous applications that matured into the patents relied upon by the Examiner. Accordingly, neither of the patents relied upon by the Examiner is available as a reference under 35 U.S.C. § 102(b). The Examiner notes that most sentences, paragraphs, and figures, of the parent '490 disclosure were omitted from the September 11, 1987 continuation-in-part application. The subject matter described in the '490 disclosure was not omitted from the '87 CIP. As demonstrated in Appendix A, the instant specification includes the subject matter described in the parent '490 disclosure. Notwithstanding, the Examiner's assertion that the language of the '490 patent is omitted from the '87 CIP is irrelevant to Applicants' claim of priority under 35 U.S.C. § 120.

Under 35 U.S.C. § 120, an application obtains the benefit of the filing date of a previously filed patent application if (a) the invention is disclosed in the manner provided by the first paragraph of section 112 in the previously filed application, (b) the application is filed by inventors named in the previously filed application, (c) the application is filed before the patenting or abandonment of or termination of proceedings on an application similarly entitled to the benefit of the filing date of the first application, and (d) the application contains a specific reference to the earlier filed application. The instant application meets each of these requirements with respect to Applicants' previous Application No. 317,510 filed November 3, 1981. The Examiner relies on Applicant prior showing that Application No. 317,510, discloses the subject matter of the instant claims. The same inventors as filed the instant application filed application No. 317,510. The instant application was filed before the termination of proceedings of Application No. 113,329, filed August 30, 1993, (currently pending) which is similarly entitled to the benefit of the filing date of Application No. 317,510. The instant application contains a specific reference to the entire chain of Applicants' applications extending back to Application No. 317,510. As the instant application meets all the requirements of 35 U.S.C. § 120, the instant application is entitled the benefit of the effective filing date of November 3, 1981. Accordingly, neither U.S. Patent No. 4,694,490 nor No. 4,704,725

are available as prior art under 35 U.S.C. § 102(b) as neither was patented or published more than one year prior to November 3, 1981.

For at least the above reasons, Applicants respectfully submit that U.S. Patents Nos. 4,694,490 and 4,704,725 are not available as prior art with respect to the presently pending claims. Applicants, therefore, request the withdrawal of the rejection of claims 56-181 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patents 4,694,490 and 4,704,725.

2. "The Weather STAR" Manual is Unavailable as Prior Art

Claims 2 to 303 stand rejected under 35 U.S.C § 102(b) as being anticipated by "The Weather STAR" device/receiver. The Examiner relies on the date of January 5, 1982 as the publication date of the installation/operation manual for the Weather Star. As discussed above in section 1 above, the effective filing date of the claims in this application is November 3, 1981. The Weather STAR publication is thus unavailable as prior art against claim 2-303. Applicants respectfully request that this rejection under 35 U.S.C. § 102(b) be withdrawn.

3. Flynn Fails to Anticipate Claim 2

Claim 2 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,761,888 issued to Flynn (hereinafter Flynn). Flynn fails to teach each step of Applicants method as set forth by claim 2.

Flynn fails to teach a step of inputting a signal and a transmission schedule associated with said signal, said transmission schedule including code designating said signal and at least one of: (1) a time at which to transmit said signal; and (2) one of a frequency and an output network on which to transmit said signal. Flynn describes a system for providing a printed log of broadcast program material. The Examiner relies on the operation of the program sequence controller 14 of Flynn to show the claimed step. The Examiner, however, acknowledges that the details of the program sequence

controller are only cursorily described in Flynn. Nevertheless, the Examiner argues that the operation of the program sequence controller must anticipate this step. Flynn provides no such teaching. Flynn fails to teach the inputting of a transmission schedule that is associated with a signal and that includes a code designating a signal and either a time at which to transmit the signal or a frequency or network on which to transmit the signal.

For at least these reasons, Flynn fails to teach each step of the method defined by claim 2. Applicants therefore respectfully request the withdrawal of this rejection of claim 2.

4. Chiddix Fails to Anticipate Claim 3

Claim 3 stands rejected under 35 U.S.C. § 102(b) as being anticipated by the article "Videocassette Banks Automate Delayed Satellite Programming" by Chiddix. Chiddix fails to show each step of the method set forth by claim 3.

Chiddix fails to show a step of receiving a control signal which is effective to control a first of said plurality of receiver stations to transmit said information transmission and to control a second of said plurality of receiver stations to identify and process at least a portion of said transmitted information transmission. The Examiner asserts "By controlling each receiver station to insert commercials into the TV program, it maintains that the cuing signals in Chiddix effectively controls each station to transmit the TV program and to identify and process those portions of the TV program into which the commercials were to be iserted." Chiddix merely states "In applications where commercial insertion is desired, additional cue track information carried on the satellite may be recorded on a second audio track, so that commercials may be inserted on a normal basis during playback." The cue track information does not control each station to transmit the TV program as asserted by the Examiner. The cue track information is also not used to identify *and process* a portion of a transmitted information transmission.

The cue track information may be recorded so that commercials may be inserted on a normal basis. No station is controled by the cue track information to identify *and* processs an information transmission.

Chiddix fails to teach selecting one of the group consisting of: (1) a time at which to communicate said control signal; and (2) a storage location to which to communicate said control signal; communicating said control signal based on said step of selecting; and storing said communicated information transmission and said control signal at said storage device. As Chiddix fails to teach a control signal as set forth in claim 3, Chiddix cannot teach selecting a time at which to communicate the control signal or a storage location to which to communicate the control signal. Chiddix also cannot teach communicating or storing such a control signal.

As Chiddix fails to teach every step of the method of claim 3, Applicants respectfully request that this rejection be withdrawn.

5. Chiddix fails to Anticipate Claim 8

Claim 8 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Chiddix for the same reason that were set forth for claim 3. Chiddix fails to teach each step of the method set forth by claim 8.

Chiddix fails to teach the step receiving a second information transmission, wherein said second information transmission is effective to control a first of said plurality of receiver stations to transmit said first information transmission and to control a second of said plurality of receiver stations to identify and process at least a portion of said transmitted first information transmission. As noted above, the Examiner relies on the cue track information described by Chiddix to show a control signal. For the reason discussed above, the cue track information does not control a receiver station to transmit the TV program. The cue track information also does not control any receiver station to identify and process a portion of the TV program.

Chiddix also fails to teach encoding said second information transmission into a control signal, said control signal for controlling predetermined receiver stations of said plurality of receiver stations by processing locally stored receiver station specific data. The Examiner asserts that the cuing signal in Chiddix inherently carries cuing information that has been encoded to create the signal. To the contrary, there is no teaching whatsoever that the cue track information described by Chiddix is encoded from a second information transmission as set forth in claim 8. There is no basis for the Examiners assertion that cue track information is inherently encoded.

Accordingly, Chiddix fails to teach a step of storing said control signal from said step of encoding. As Chiddix fails to teach a control signal as set forth in claim 8, Chiddix cannot teach storing such a control signal.

For at least these reasons, Chiddix fails to teach each step of the method defined by claim 8. Applicants therefore respectfully request the withdrawal of this rejection of claim 8.

6. Kamishima Fails to Anticipate Claim 25

Claim 25 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese unexamined application no. 56-51161 naming inventors Kamishima et al. (hereinafter Kamishima). Applicants note the effective filing date of claim 25 is November 3, 1981 and Kamishima was published on May 8, 1981. Accordingly, Kamishima is not available as a reference under 35 U.S.C. § 102(b) as asserted by the Examiner. Regardless, Kamishima fails to teach each step of Applicants' method as set forth by claim 25.

Kamishima fails to teach the claimed step of inputting a signal and a transmission schedule associated with said signal, said schedule comprising at least one of: (1) a time at which to transmit said signal; and (2) one of a frequency and an output network on which to transmit said signal. Kamishima describes a system for monitoring output video

signals. The Examiner relies on "inherent" operation of the automatic program emitter (APE) of Kamishima to teach applicants' method. The Examiner acknowledges that the APE is not described in detail within Kamishima. To overcome this deficiency, the Examiner takes extensive Official Notice of what comprised the APE. Applicants traverse the Official Notice of the details of the operation of the APE. There is no showing that the APE of Kamishima operates in the precise manner assumed by the Examiner. The Examiner argues that the inherent operation of the APE anticipates this step. Kamishima provides no such teaching. Kamishima fails to teach the inputting of a transmission schedule that is associated with a signal and that includes a time at which to transmit the signal or a frequency or network on which to transmit the signal.

As Kamishima fails to teach a transmission schedule input as set forth by claim 25, Kamishima also cannot teach transmitting said signal according to *said schedule*; and comparing said at least a portion of information to a portion of *said schedule*, thereby to determine proper transmission of said signal according to *said schedule*.

For at least the above reasons, Kamishima fails to teach each step of Applicants' method as set forth by claim 25. Applicants therefore respectfully request the withdrawal of this rejection of claim 25.

7. Kamishima Fails to Anticipate Claim 31

Claim 25 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Kamishima for the same reasons as set forth for claim 25. As noted above with respect to claim 25, Kamishima is not available as a reference under 35 U.S.C. § 102(b). Regardless, Kamishima fails to teach each step of Applicants' method as set forth by claim 31.

Kamishima fails to teach the claimed step of inputting to said transmitter station said signal and a transmission schedule associated with said signal, said signal including a first identifier, said schedule including a second identifier and at least one of: (1) a time

at which to transmit said signal; and (2) one of a frequency and an output network on which to transmit said signal. Kamishima describes a system for monitoring output video signals. The Examiner relies on "inherent" operation of the automatic program emitter (APE) of Kamishima to teach applicants method. The Examiner acknowledges that the APE is not described in detail within Kamishima. To overcome this deficiency, the Examiner takes extensive Official Notice of what comprised the APE. Applicants traverse the Official Notice of the details of the operation of the APE. There is no showing that the APE of Kamishima operates in the precise manner assumed by the Examiner. The Examiner argues that the inherent operation of the APE anticipates this step. Kamishima provides no such teaching. Kamishima fails to teach the inputting of a transmission schedule that is associated with a signal and that includes a time at which to transmit the signal or a frequency or network on which to transmit the signal.

As Kamishima fails to teach a transmission schedule input as set forth by claim 31, Kamishima also cannot teach transmitting said signal according to *said schedule*.

For at least the above reasons, Kamishima fails to teach each step of Applicants' method as set forth by claim 31. Applicants therefore respectfully request the withdrawal of this rejection of claim 31.

8. Corey Fails to Anticipate Claim 64

Claim 64 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,199,791 issued to Corey (hereinafter Corey). Corey fails to teach each step of the method defined by claim 64.

Corey fails to teach the claimed step of controlling said switch to communicate said specific programming according to timing instructions. The Examiner relies on the audio switching unit 34 of Corey to show a switch. The Examiner alleges the audio switching unit 34 is controlled according to timing instructions provided by the decoder 28 and control logic unit 29. Corey merely states: "audio switching unit 34 sequentially

actuates the next available cartridge controller . . . each time control logic unit 29 actuates [the] audio recording system." Corey fails to teach timing instructions as set forth by claim 64.

Corey also fails to teach the step of delaying communication of said signal. Corey describes an automatic recording system for receiving and recording wire service reports for use on news broadcasts. The Corey system merely records the reports so that they may be accessed by those who produce the news report. The Corey system does not provide any means for communicating the reports to the ultimate consumer. The Examiner relies on the statement in Corey that the apparatus includes a recorder which records the entire incoming transmission as a backup in the event a particular massage is not recorded properly by the remainder of the system. In this event, the entire recorded transmission can be replayed into the system for proper recording of each particular message. Corey does not teach that this backup recording is used in any manner to delay the communication of any signal.

For at least the above reasons, Corey fails to teach each step of the method set forth by claim 64. Applicants therefore respectfully request that this rejection be withdrawn.

F. Response to Rejections under 35 U.S.C. § 103

1. Kazama Fails to Show or Suggest the Method of Claim 2.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the article "Automatic Storage and Retrieval of Videotaped Programs" by Komei Kazama and Hirofumi Itoh (hereinafter Kazama). Kazama fail to show or suggest each step of the method set forth by claim 2.

Kazama fails to show or suggest the claimed step of inputting a signal and a transmission schedule associated with said signal, said transmission schedule including code designating said signal and at least one of: (1) a time at which to transmit said

signal; and (2) one of a frequency and an output network on which to transmit said signal. Kazama describes a system for automatic storage of videotapes that transfers videotapes from storage racks to a tape-handling carousel. The videotapes are then loaded by hand onto playback machines. Kazama does not disclose transmitting signals, but rather describes a robot for transferring videotapes. Kazama does not show inputting signals. The main system computer of Kazama memorizes the identification numbers of tapes. Accordingly, Kazama fails to show or suggest inputting a transmission schedule associated with an input signal. The Examiner notes that Kazama refers to recording VTR machines. There is, however, no association between any incoming signals and a transmission schedule suggested by Kazama. Kazama includes no suggestion of a transmission schedule including code designating the input signal or designating a time, frequency, or output network related to the output of an input signal.

As Kazama fails to show or suggest a transmission schedule as set forth by claim 2, Kazama cannot show transmitting said signal according to *said transmission schedule*.

Kazama fails to show or suggest a step of selecting one of said code and an identifier associated with said signal. The Examiner asserts that the claim fails to relate this step to any of the others that are recited in the claim. To the contrary, this step is explicitly related to the recited signal as is each step recited in the claim. The Examiner asserts that this selection step is inherently met by many processes that must occur in a broadcast station. Kazama, however, describes moving videotape. There is no suggestion to select a code or identifier *associated with an input signal*.

The Examiner acknowledges that Kazama does not describe logging transmission of said signal. The Examiner asserts that it would have been obvious for the station described in Kazama to have comprised means for monitoring and logging the programming being broadcast. This claim, however, sets forth logging the transmission of a signal that is input and transmitted according to an associated transmission schedule.

Kazama fails to suggest such a signal. There is no suggestion in the prior art to modify Kazama to log such a signal.

For at least these reasons, Kazama fails to show or suggest each element of Applicants' method as set forth by claim 2. Applicants respectfully request the withdrawal of this rejection of claim 2.

Claims 225-227 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kazama for the same reasons as set forth for claim 2. Claims 225-227 depend from claim 2. As discussed above, Kazama fails to show or suggest every element of claim 2 and thus, *ipso facto*, Kazama fails to show or suggest every element of dependent claims 225-227, and therefore, this rejection should be withdrawn and the claim be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth by claim 2. The Examiner has failed to provide reasons supporting the conclusion that Kazama suggests these additional limitations.

2. Chiddix in View of Fails to Show or Suggest the Method of Claim 3.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiddix in view of Germany. Chiddix in view of Germany fails to show or suggest each step of the method as set forth in claim 3.

For the reasons discussed above in section E.3 above, Chiddix fails to show or suggest the claimed steps of receiving a control signal which is effective to control a first of said plurality of receiver stations to transmit said information transmission and to control a second of said plurality of receiver stations to identify and process at least a portion of said transmitted information transmission; selecting one of the group consisting of: (1) a time at which to communicate said control signal; and (2) a storage location to which to communicate said control signal; communicating said control signal based on said step of selecting; and storing said communicated information transmission and said control signal at said storage device.

Furthermore, the Examiner acknowledges that Chiddix fails to show a control signal which is effective to control a second receiver station to identify and process an information transmission. The Examiner relies on British Patent Specification 959,274 naming inventor Leslie Walter Germany (hereinafter Germany) to show such a control signal. Germany describes inserting cue signals during the frame suppression period of a television signal. Germany notes that these cue signals may be transmitted so as to operate at ordinary viewers television receivers. Germany fails to suggest that cue signals function to identify and process an information transmission. Germany thus fails to correct the deficiency the Examiner has identified with the primary reference to Chiddix.

For at least these reasons, Chiddix in view of Germany fails to show or suggest each element of Applicants' method as set forth by claim 3. Applicants respectfully request the withdrawal of this rejection of claim 3.

Claims 4-7, 27-30, 32-35, 37-40, 42-45, 47-63 and 66-68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiddix in view of Germany for the same reasons as set forth for claim 3 above. Claims 4-7, 27-30, 32-35, 37-40, 42-45, 47-63 and 66-68 depend from claim 3. As discussed above, Chiddix in view of Germany fails to show or suggest every element of claim 3 and thus, *ipso facto*, Chiddix in view of Germany fails to show or suggest every element of dependent claims 4-7, 27-30, 32-35, 37-40, 42-45, 47-63 and 66-68, and therefore, this rejection should be withdrawn and the claim be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth by claim 3. The Examiner has failed to provide reasons supporting the conclusion that Chiddix in view of Germany shows these additional limitations.

3. Chiddix in View of Fails to Show or Suggest the Method of Claim 8.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiddix in view of Germany. Chiddix in view of Germany fails to show or suggest each step of the method as set forth in claim 8.

For the reasons discussed above in section E.5 above, Chiddix fails to show or suggest the claimed steps of receiving a second information transmission, wherein said second information transmission is effective to control a first of said plurality of receiver stations to transmit said first information transmission and to control a second of said plurality of receiver stations to identify and process at least a portion of said transmitted first information transmission; encoding said second information transmission into a control signal, said control signal for controlling predetermined receiver stations of said plurality of receiver stations by processing locally stored receiver station specific data; and storing said control signal from said step of encoding. The Examiner does not assert that Germany, nor does Germany, show these steps not found in Chiddix.

The Examiner asserts that Germany exemplifies the encoding process. Germany fails to show encoding a received second information transmission into a control signal as set forth by claim 8. Germany fails to correct the deficiencies of applied primary reference of Chiddix.

For at least these reasons, Chiddix fails to show or suggest each element of Applicants' method as set forth by claim 8. Applicants respectfully request the withdrawal of this rejection of claim 8.

Claims 9-12, 69, 71-74, 76-79, 81-84, 86, 89-92, 94-97, 99-102, 104-107, and 109-114 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiddix in view of Germany for the same reasons as set forth for claim 8 above. Claims 9-12, 69, 71-74, 76-79, 81-84, 86, 89-92, 94-97, 99-102, 104-107 depend from claim 8. As discussed above, Chiddix in view of Germany fails to show or suggest every element of claim 8 and thus, *ipso facto*, Chiddix in view of Germany fails to show or suggest every element of dependent claims 9-12, 69, 71-74, 76-79, 81-84, 86, 89-92, 94-97, 99-102, 104-107, and therefore, this rejection should be withdrawn and the claim be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth

by claim 8. The Examiner has failed to provide reasons supporting the conclusion that Chiddix in view of Germany shows these additional limitations.

4. Keiser in View of Vikene Fails to Show or Suggest the Method of Claim 3

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,390,901 issued to Keiser (hereinafter Keiser) in view of International Publication No. WO 08/02093 by Vikene (hereinafter Vikene). Keiser in view of Vikene fails to show or suggest each step of the method set forth in claim 3.

Keiser fails to show or suggest the step of receiving a control signal which is effective to control a first of said plurality of receiver stations to transmit said information transmission and to control a second of said plurality of receiver stations to identify and process at least a portion of said transmitted information transmission. Keiser describes a system that inserts program information into the vertical blanking gap of a TV signal. The Examiner relies on the program information as showing a control signal. Keiser fails to show or suggest that this program information is effective to control a first receiver station to transmit an information transmission and to control a second receiver station to identify and process the information transmission. The Examiner asserts that any receiver station in the Keiser system transmits (*i.e.* sends from one place to another) information signals to a display or recording device. Keiser fails to suggest the program information is effective to control such a "transmission." Keiser merely describes that a microcomputer at the receiver station compares program selection criteria to the received program information. In response to the comparison the Keiser system generates an actuation signal for the receiver unit. There is no suggestion that the program information is effective to control transmission of an information transmission as set forth in claim 3. Likewise, Kieser includes no suggestion that the program information is effective to control a second receiver station to identify and process an information transmission. As noted above Kieser merely generates an actuation signal for the receiver unit.

Accordingly, Kieser fails to suggest a control signal as set forth by claim 3. Thus Kieser cannot show or suggest receiving such a control signal.

Vikene fails to correct this deficiency of the primary reference. The Examiner relies on Vikene to show recording control signals with an information transmission. There is no suggestion that Vikene suggests a control signal as set forth in claim 3.

As Kieser in view of Vikene fails to suggest a control signal as set forth is claim 3, these applied references cannot show or suggest selecting a time at which to communicate *said control signal* or selecting a storage location to which to communicate *said control signal*. Likewise, these applied references cannot show or suggest communicating said *control signal* based on said step of selecting and storing said communicated information transmission and said *control signal* at said storage device.

For at least the above reasons, Keiser in view of Vikene fails to show or suggest each step of the method set forth by claim 3. Applicants therefore request the withdrawal of this rejection of claim 3.

Claims 4-7, 27-30, 32-35, 37-40, 42-45, 47-63 and 66-68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kieser in view of Vikene for similar reasons as set forth for claim 3 above. Claims 4-7, 27-30, 32-35, 37-40, 42-45, 47-63 and 66-68 depend from claim 3. As discussed above, Kieser in view of Vikene fails to show or suggest every element of claim 3 and thus, *ipso facto*, Kieser in view of Vikene fails to show or suggest every element of dependent claims 4-7, 27-30, 32-35, 37-40, 42-45, 47-63 and 66-68, and therefore, this rejection should be withdrawn and the claims be permitted to issue.

5. Mothersole and Betts Fail to Show or Suggest the Method of Claim 13

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over teletext distribution systems as shown in the article "Teletext Signal Generation Equipment and Systems" by Mothersole (hereinafter Mothersole) and British Patent

Specification No. 1,556,366 naming Betts as inventor (hereinafter Betts). Mothersole and Betts fail to show or suggest each step of Applicants' method as set forth in claim 13.

Mothersole and Betts fail to show or suggest the claimed step of receiving said at least one control signal to be transmitted from said at least one origination station, wherein said at least one control signal is effective in said network to control a first of said data receiver stations to transmit said data and to control a second of said data receiver stations to identify and process at least a portion of said transmitted data. Mothersole describes a system for distributing teletext in the vertical blanking interval of a normal television signal. Mothersole further describes methods by which local television stations insert local pages into the television signal. One method Mothersole mentions is to use a switching data bridge to switch out a magazine of text from the incoming network signal and insert the local magazine in its place. The Examiner asserts that generated teletext page numbers act as control signals to control this process of adding local magazines and to control the consumers television to identify and process the desired teletext pages. Mothersole fails to suggest any page numbers capable of these control functions. Mothersole suggests no page numbers that control the local station to transmit the teletext. To the contrary, the local station of Mothersole is free to switch out and replace any network magazine. Likewise, Mothersole suggests no page numbers that control the television receivers to process or display any particular teletext page. Mothersole suggests no page numbers that have the characteristics of the control signal as set forth in claim 13. Accordingly, Mothersole cannot suggest receiving at least one such control signal.

Betts fails to correct this deficiency of the primary reference. The Examiner does not rely on Betts to show, nor does Betts show, a control signal as set forth in claim 13.

As Mothersole and Betts fail to show or suggest a control signal as set forth by claim 13, neither Mothersole nor Betts can show or suggest the step of transmitting an

information transmission from said at least one origination station comprising said received data and said received at least one *control signal*.

For at least the above reasons, Mothersole and Betts fail to show or suggest each step of the method set forth in claim 13. Applicants therefore respectfully request the withdrawal of this rejection of claim 13.

Claims 14-17, 115-118 and 121-152 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mothersole and Betts for same reasons that were set forth for claim 13. Claims 14-17, 115-118 and 121-152 depend from claim 13. As discussed above, Mothersole and Betts fail to show or suggest every element of claim 13 and thus, *ipso facto*, Mothersole and Betts fails to show or suggest every element of dependent claims 14-17, 115-118 and 121-152, and therefore, this rejection should be withdrawn and the claims be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth by claim 13. The Examiner has failed to provide reasons supporting the conclusion that Mothersole and Betts show these additional limitations.

6. Chiddix in View of Germany Fails to Show or Suggest the Method of Claim 18

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiddix in view of Germany for the same reasons that were set forth for claim 3. Chiddix in view of Germany fails to show or suggest each step of the method set forth by claim 18.

Chiddix fails to show a step of receiving said at least one control signal to be transmitted from said origination station, wherein said at least one control signal is effective in said network to control a first of said programming receiver stations to transmit said mass medium programming and to control a second of said programming receiver stations to identify and process at least a portion of said transmitted mass medium programming. The Examiner asserts "By controlling each receiver station to

insert commercials into the TV program, it maintains that the cuing signals in Chiddix effectively controls each station to transmit the TV program and to identify and process those portions of the TV program into which the commercials were to be inserted." Chiddix merely states "In applications where commercial insertion is desired, additional cue track information carried on the satellite may be recorded on a second audio track, so that commercials may be inserted on a normal basis during playback." The cue track information does not control each station to transmit the TV program as asserted by the Examiner. The cue track information is also not used to identify *and process* a portion of mass medium programming. The cue track information may be recorded so that commercials may be inserted on a normal basis. No station is controled by the cue track information to identify *and* processs mass medium programming.

Germany fails to correct for this deficiency of the primary reference. The Examiner does not assert that Germany shows, and Germany does not show, a control signal as set forth by claim 18.

Chiddix in view of Germany fails to show or suggest a step of transmitting an information transmission from said origination station comprising said received mass medium programming and said received at least one control signal. As Chiddix in view of Germany fails to suggest a control signal as set forth in claim 18, Chiddix in view of Germany cannot teach transmitting an information transmission from said origination station comprising said received mass medium programming and said received at least one *control signal.*

As Chiddix in view of Germany fails to teach every step of the method of claim 18, Applicants respectfully request that this rejection be withdrawn.

Claims 19-22 and 153-188 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiddix in view of Germany for same reasons that were set forth for claim 18. Claims 19-22 and 153-188 depend from claim 18. As discussed above, Chiddix in view of Germany fails to show or suggest every element of claim 18 and thus,

ipso facto, Chiddix in view of Germany fails to show or suggest every element of dependent claims 19-22 and 153-188, and therefore, this rejection should be withdrawn and the claims be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth by claim 18. The Examiner has failed to provide reasons supporting the conclusion that Chiddix in view of Germany shows these additional limitations.

7. Mothersole and Betts Fail to Show or Suggest the Method of Claim 18

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mothersole and Betts for the same reasons set forth for claim 13. Mothersole and Betts fail to show or suggest each step of Applicants' method as set forth in claim 18.

Mothersole and Betts fail to show or suggest the claimed step of receiving said at least one control signal to be transmitted from said origination station, wherein said at least one control signal is effective in said network to control a first of said programming receiver stations to transmit said mass medium programming and to control a second of said programming receiver stations to identify and process at least a portion of said transmitted mass medium programming. As discussed above with respect to claim 13, Mothersole describes as system for distributing teletext in the vertical blanking interval of a normal television signal. Mothersole further describes methods by which local television stations insert local pages into the television signal. One method Mothersole mentions is to use a switching data bridge to switch out a magazine of text from the incoming network signal and insert the local magazine in its place. The Examiner asserts that generated teletext page number act as control signals to control this process of adding local magazines and to control the consumers television to identify and process the desired teletext pages. Mothersole fails to suggest any page numbers capable of these control functions. Mothersole suggests no page numbers that control the local station to transmit the teletext. To the contrary, the local station of Mothersole is free to switch out

and replace any network magazine. Likewise, Mothersole suggests no page numbers that control the television receivers to process or display any particular teletext page. Mothersole suggests no page numbers that have the characteristics of the control signal as set forth in claim 18. Accordingly, Mothersole cannot suggest receiving at least one such control signal.

Betts fails to correct this deficiency of the primary reference. The Examiner does not rely on Betts to show, nor does Betts show, a control signal as set forth in claim 18.

As Mothersole and Betts fail to show or suggest a control signal as set forth by claim 18, neither Mothersole nor Betts can show or suggest the step of transmitting an information transmission from said origination station comprising said received mass medium programming and said received at least one *control signal*.

For at least the above reasons, Mothersole and Betts fail to show or suggest each step of the method set forth in claim 18. Applicants therefore respectfully request the withdrawal of this rejection of claim 18.

Claims 19-22 and 153-188 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mothersole and Betts for same reasons that were set forth for claim 18. Claims 19-22 and 153-188 depend from claim 18. As discussed above, Mothersole and Betts fail to show or suggest every element of claim 18 and thus, *ipso facto*, Mothersole and Betts fails to show or suggest every element of dependent claims 19-22 and 153-188, and therefore, this rejection should be withdrawn and the claims be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth by claim 18. The Examiner has failed to provide reasons supporting the conclusion that Mothersole and Betts show these additional limitations.

8. Mothersole in View of Teletext Specification Fails to Show or Suggest the Method of Claim 23

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mothersole in view of the publication "CBS/CCETT North American Broadcast Teletext

Specification" (hereinafter Teletext Specification). Mothersole in view of Teletext Specification fails to show or suggest each step of the method set forth by claim 23.

Mothersole in view of the Teletext Specification fails to show or suggest the claimed step of receiving at least one control signal to be transmitted from an origination station, said at least one control signal effective in said network to control a first of said receiver stations to transmit said information transmission and to control a second of said receiver stations to identify and process at least a portion of said transmitted information transmission. Mothersole describes as system for distributing teletext in the vertical blanking interval of a normal television signal. Mothersole further describes methods by which local television stations insert local pages into the television signal. One method Mothersole mentions is to use a switching data bridge to switch out a magazine of text from the incoming network signal and insert the local magazine in its place. The Examiner asserts that generated teletext page numbers act as control signals to control this process of adding local magazines and to control the consumer's television to identify and process the desired teletext pages. Mothersole fails to suggest any page numbers that include these control functions. Mothersole suggests no page numbers that control the local station to transmit the teletext. To the contrary, the local station of Mothersole is free to switch out and replace any network magazine. Likewise, Mothersole suggests no page numbers that control the television receivers to process or display any particular teletext page. Mothersole suggests no page numbers that have the characteristics of the control signal as set forth in claim 23. Accordingly, Mothersole cannot suggest receiving at least one such control signal.

The Teletext Specification fails to correct this deficiency of the primary reference. The Examiner does not rely on the Teletext Specification to show, nor does the Teletext Specification show, a control signal as set forth in claim 23.

Mothersole in view of Teletext Specification fails to show or suggest the step of receiving at least one designation signal to be transmitted from said origination station,

said at least one designation signal designating at least one receiver station of said network of receiver stations to which said at least one control signal is addressed. The Examiner acknowledges that Mothersole fails to show or suggest a designation signal as set forth by claim 23. The Examiner relies on page 22, lines 13-14 of the Teletext Specification to show a designation signal. These lines provide that a teletext message may include a byte that indicates the type of record. The Teletext Specification provides that this byte may indicate the message is addressed to a specific user or group of users. The Teletext Specification fails to suggest that this byte designates to which user the messege is addressed. There is no teaching in the Teletext Specification that any code designates a receiver station to which a control signal is addressed as set forth in claim 23. The Examiner cites no suggestion or motivation to modify Mothersole to include a designation signal that designates a receiver station *to which a control signal is addressed.*

As Mothersole in view of the Teletext Specification fail to show or suggest either a control signal or a designation signal as set forth by claim 23, neither Mothersole nor the Teletext Specification can show or suggest the step of transmitting said information transmission from said origination station, said information transmission comprising said received at least one *control signal* and said received at least one *designation signal*.

For at least the above reasons, Mothersole in view of the Teletext Specification fails to show or suggest each step of the method set forth in claim 23. Applicants therefore respectfully request the withdrawal of this rejection of claim 23.

Claims 24 and 189-224 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mothersole in view of Teletext Specification for same reasons that set forth for claim 23. Claims 24 and 189-224 depend from claim 23. As discussed above, Mothersole in view of Teletext Specification fails to show or suggest every element of claim 23 and thus, *ipso facto*, Mothersole in view of Teletext Specification fails to show or suggest every element of dependent claims 24 and 189-224, and therefore, this

rejection should be withdrawn and the claims be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth by claim 23. The Examiner has failed to provide reasons supporting the conclusion that Mothersole in view of Teletext Specification shows these additional limitations.

9. Haselwood Fails to Show or Suggest the Method of Claim 31

Claim 31 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,025,851 issued to Haselwood et al. (hereinafter Haselwood). Haselwood fails to show or suggest each step of Applicants' method as set forth by claim 31.

Haselwood fails to show or suggest the claimed step of inputting to said transmitter station said signal and a transmission schedule associated with said signal, said signal including a first identifier, said schedule including a second identifier and at least one of: (1) a time at which to transmit said signal; and (2) one of a frequency and an output network on which to transmit said signal. Haselwood describes a system for automatically monitoring programs broadcast by network affiliated broadcasting stations. The Examiner acknowledges that Haselwood does not show inputting a transmission schedule. The Examiner asserts that because television programming has traditionally not been broadcast randomly, means for inputting a schedule into a network station and an affiliate station are included in the network monitored in Haselwood. There is no support for the Examiners assertion. Television programming can be broadcast at its scheduled time without inputting a transmission schedule as set forth in claim 31. The transmission schedule set forth in claim 31 includes a second identifier and either a time at which to transmit a signal that is input or a frequency or network on which to transmit the signal. Haselwood shows no such transmission schedule and includes no suggestion to input such a transmission schedule.

Haselwood also fails to show or suggest the claimed step of comparing said first identifier and said second identifier. The Examiner asserts that by comparing the sequence of monitoring codes which are extracted at the receiver cite with the sequence the monitoring codes were transmitted from a network station the network station is able to determine if the programming is properly rebroadcast by intermediate stations. Haselwood describes no such comparison. Furthermore, claim 31 sets forth comparing a first identifier included in an input signal and a second identifier included in an input schedule. Haselwood fails to suggest these two identifiers and thus cannot suggest comparing them as set forth by claim 31.

Haselwood, further, fails to show or suggest the claimed step of transmitting said signal to said receiver station according to said schedule based on said step of comparing. The Examiner fails to address this step. Haselwood merely monitors what is broadcast. Haselwood includes no suggestion to transmit any signal based on any step of comparing.

For at least the above reasons, Haselwood fails to show or suggest each step of the method set forth by claim 31. Applicants respectfully request the withdrawal of this rejection of claim 31.

Claims 236-238 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood for the same reasons set forth for claim 31. Claims 236-238 depend from claim 31. As discussed above, Haselwood fails to show or suggest every element of claim 31 and thus, *ipso facto*, Haselwood fails to show or suggest every element of dependent claims 236-238, and therefore, this rejection should be withdrawn and the claims be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth by claim 31. The Examiner has failed to provide reasons supporting the conclusion that Haselwood shows these additional limitations.

10. Haselwood Fails to Show or Suggest the Method of Claim 41

Claim 41 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood for the same reason described for claim 31. Haselwood fails to show or suggest each step of Applicants' method as set forth by claim 41.

Haselwood fails to show or suggest the claimed step of inputting a schedule including a designation for each of said plurality of signals of at least one of (1) an approximate transmission time, and (2) one of a transmission frequency and an output network. As discussed above with respect to claim 31, the Examiner acknowledges that Haselwood does not show inputting a schedule. The Examiner asserts that because television programming has traditionally not been broadcast randomly, means for inputting a schedule into a network station and an affiliate station are included in the network monitored in Haselwood. As discussed with respect to claim 31, there is no support for the Examiner's assertion. The schedule set forth in claim 41 includes a designation for each of a plurality of signals of at least a transmission time, a transmission frequency or an output network. Haselwood shows no such schedule and includes no suggestion to input such a transmission schedule.

Haselwood also fails to show or suggest the claimed step of transferring said signal to a distribution system of a transmission station according to said schedule. The Examiner fails to address this step. Haselwood includes no suggestion to transfer signal that is input to a distribution system of a transmission station according to a schedule that is input as set forth by claim 41.

For at least the above reasons, Haselwood fails to show or suggest each step of the method set forth by claim 41. Applicants respectfully request the withdrawal of this rejection of claim 41.

Claims 241-248 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood for the same reasons set forth for claim 41. Claims 241-248 depend from claim 41. As discussed above, Haselwood fails to show or suggest every element of

claim 41 and thus, *ipso facto*, Haselwood fails to show or suggest every element of dependent claims 241-248, and therefore, this rejection should be withdrawn and the claims be permitted to issue. Furthermore, each of these claims adds further limitations to the method set forth by claim 41. The Examiner has failed to provide reasons supporting the conclusion that Haselwood shows these additional limitations.

11. Haselwood Fails to Show or Suggest the Method of Claim 46

Claim 46 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood for the same reason described for claim 31. Haselwood fails to show or suggest each step of Applicants' method as set forth by claim 46.

Haselwood fails to show or suggest the claimed step of inputting a schedule to a controller for controlling a transmission station, said schedule including for each of said plurality of signals at least one of (1) an approximate transmission time; and (2) one of a transmission frequency and an output network. As discussed above with respect to claim 31, the Examiner acknowledges that Haselwood does not show inputting a schedule. Nor does Haselwood show a controller to which a schedule is input. The Examiner asserts that because television programming has traditionally not been broadcast randomly, means for inputting a schedule into a network station and an affiliate station are included in the network monitored in Haselwood. As discussed with respect to claim 31, there is no support for the Examiner's assertion. The schedule set forth in claim 46 includes for each of a plurality of signals at least an approximate transmission time, a transmission frequency or an output network. Haselwood shows no such schedule and includes no suggestion to input such a schedule.

As Haselwood fails to show or suggest a schedule as set forth by claim 46, Haselwood cannot suggest the claimed step of transmitting said signal according to *said schedule*.

For at least the above reasons, Haselwood fails to show or suggest each step of the method set forth by claim 46. Applicants respectfully request the withdrawal of this rejection of claim 46.

Claim 249 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood for the same reasons set forth for claim 46. Claim 249 depends from claim 46. As discussed above, Haselwood fails to show or suggest every element of claim 46 and thus, *ipso facto*, Haselwood fails to show or suggest every element of dependent claim 249, and therefore, this rejection should be withdrawn and the claim be permitted to issue. Furthermore, claim 249 set forth the step of selecting one of said plurality of signals according to said schedule. The Examiner has failed to address this claimed step. Haselwood fails to show or suggest this claimed step.

12. The Rejection over WO 89/02682 is improper

Claims 2 to 303 stand rejected under 35 U.S.C. § 103(a). The Examiner asserts that claims 2 to 303 are unpatentable over WO 89/02682 to the extent that applicants can satisfy the enablement requirement of Section 112, first paragraph, but not the support requirement. WO 89/02682 is the international publication number of the Applicants' own international application published March 23, 1989. The specification of this international application substantially corresponds to the specification of the instant application and the specification of the parent application filed September 11, 1987. Claims 2 to 303 are entitled to the effective filing date of November 3, 1981. However, assuming *arguendo* that the claim of priority to the 1981 application is flawed, then the claims are entiled to an effective filing date of September 11, 1987. In either case, this international application published March 23, 1989, is unavailable as prior art. Accordingly, Applicants request the withdrawal of this rejection of claims 2 to 303 under 35 U.S.C. § 103(a).

13. The Rejection over Greenberg in view of Galumbeck is improper

The Examiner rejects pending claims of the group 2 to 303 that are directed to processes of controlling cable head end processes and monitoring of those processes and combined medium presentation under 35 U.S.C. § 103(a) an being unpatentable over Greenberg, U.S. Patent No. 4,547,804 (Greenberg), in view of Galumbeck et al., (U.S. Patent No. 4,725,886 (Galumbeck). The Examiner has failed to state a rejection. The Examiner has also failed to provide information on which a *prima facie* case of obviousness could be based.

The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. Under 37 C.F.R. § 1.104(c), "If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected." This rule requires that the Examiner at a minimum identify the claims subject to each ground of rejection.

All of the claims pending in the instant application are entitled to the effective filing date of November 3, 1981. Greenberg issued October 15, 1985, from an application filed March 21, 1983. Galumbeck issued February 16, 1988, from an application filed April 21, 1983. Accordingly, neither of the references applied in this rejection are available as prior art.

For at least any one of the above reasons, Applicants request the withdrawal of this rejection under 35 U.S.C. § 103(a).

14. The Rejection over Jeffers is improper

The Examiner rejects pending claims of the group 2 to 303 that are directed to, *inter alia,* processes of controlling broadcast subscriber stations, including decrypting, processing, storing, generating, and monitoring of those processes and combined medium presentation under 35 U.S.C. § 103(a) an being unpatentable over Jeffers et al., U.S. Patent No. 4,739,510 (Jeffers). The Examiner has failed to state a rejection. The

Examiner has also failed to provide information on which a *prima facie* case of obviousness could be based.

The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. Under 37 C.F.R. § 1.104(c), "If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected." This rule requires that the Examiner at a minimum identify the claims subject to each ground of rejection.

All of the claims pending in the instant application are entitled to the effective filing date of November 3, 1981 Jeffers issued April 19, 1988, from an application filed April 2, 1987, and is a continuation of application Ser. No. 729,209 filed May 1, 1985. Accordingly, Jeffers is not available as prior art.

For at least any one of the above reasons, Applicants request the withdrawal of this rejection under 35 U.S.C. § 103(a).

15. The Rejection over Hazelwood in view of Yamane and Australian Document No. 74,619 is improper

Pending claims of the group 2 to 303 that are directed to, *inter alia*, processes of controlling affiliate stations and processes and monitoring of those processes and combined medium presentation stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haselwood in view of the publication "System and Apparatus for Automatic Monitoring Control of Broadcast Circuits" by Yamane et al. and Australian Patent Document No. 74,619 to Hetrich. The Examiner has failed to state a rejection. The Examiner has also failed to provide information on which a *prima facie* case of obviousness could be based.

The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter

the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333, 1337 (Fed. Cir. 1990). Under 37 C.F.R. § 1.104(c), "If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected. . . . The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claim specified.*" (emphasis added) Section 707.07(i) of the M.P.E.P. sets forth, "In every letter, each pending claim should be mentioned by number, and its treatment or status given." Accordingly, to state a valid rejection the Examiner must, at a minimum, specify by number the claims subject to each ground of rejection. The failure of the Examiner to identify by number the claims that may stand rejected results in a statement that is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection. As the purported rejection fails to identify the claims rejected by number, the purported rejection fails to comply with the requirements of 35 U.S.C. § 132, 37 C.F.R. § 1.104(c) and M.P.E.P § 707.07(i).

The Examiner has failed to provide information on which a *prima facie* case of obviousness could be based under 35 U.S.C. § 103(a).

> Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459, 467 (1966).

The Examiner has utterly failed to conduct the second inquiry set forth in *Graham v. Deere*. The Office Action includes no inquiry into the differences between the prior art and the claims at issue. "Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language." M.P.E.P. § 2141.02. The Examiner makes no attempt to interpret the claim language. The Examiner makes no attempt to determine whether *the pending claims* are obvious in view of the cited prior art. Rather,

the Examiner merely asserts what he feels the applied references teach. The Office Action includes no showing that applied references teach all of the limitations of any of the pending claims. Thus, the Office Action provides insufficient information on which to base a *prima facie* case of obviousness.

Applicants respectfully submit that, notwithstanding the accuracy of the Examiner's characterization of the applied references or applicability of any of these references against the pending claims, for the above reasons the Office Action fails to state a *prima facie* case of obviousness. Therefore, Applicants respectfully request the withdrawal of this rejection under 35 U.S.C. § 103(a).

16. The Rejection over Campbell in view of Breeze, Schnee, or Zaboklicki is improper

Pending claims of the group 2 to 303 that are directed to, *inter alia*, processes of controlling subscriber station processes and monitoring of those processes and of combined medium presentation and processes stand rejected under 35 U.S.C. § 103(a) as being unpatentable over either one of the common subject matter suggested by Campbell et al. (WO 81/02961, aban. Parent Appl. No. 135,987, U.S. Patent 4,536,791) in view of at least one or more of: Breeze "Television Line 21 Encoding Information And It's Impact on Receiver Station Design;" Schnee (U.S. Patent No. 4,290,142); and Zaboklicki (DE 2,904,891). 56-181 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al. in view of Zaboklicki. The Examiner has failed to state a rejection. The Examiner has also failed to provide information on which a *prima facie* case of obviousness could be based.

The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333,

1337 (Fed. Cir. 1990). Under 37 C.F.R. § 1.104(c), "If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected. . . . The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claim specified.*" (emphasis added) Section 707.07(i) of the M.P.E.P. sets forth, "In every letter, each pending claim should be mentioned by number, and its treatment or status given." Accordingly, to state a valid rejection the Examiner must, at a minimum, specify by number the claims subject to each ground of rejection. The failure of the Examiner to identify by number the claims that may stand rejected results in a statement that is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection. As the purported rejection fails to identify the claims rejected by number, the purported rejection fails to comply with the requirements of 35 U.S.C. § 132, 37 C.F.R. § 1.104(c) and M.P.E.P § 707.07(i).

The Examiner has failed to provide information on which a *prima facie* case of obviousness could be based under 35 U.S.C. § 103(a).

> Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459, 467 (1966).

The Examiner has utterly failed to conduct the second inquiry set forth in *Graham v. Deere*. The Office Action includes no inquiry into the differences between the prior art and the claims at issue. "Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language." M.P.E.P. § 2141.02. The Examiner makes no attempt to interpret the claim language. The Examiner makes no attempt to determine whether *the pending claims* are obvious in view of the cited prior art. Rather, the Examiner merely asserts what he feels the applied references teach. The Office

Action includes no showing that applied references teach all of the limitations of any of the pending claims. Thus, the Office Action provides insufficient information on which to base a *prima facie* case of obviousness.

Applicants respectfully submit that, notwithstanding the accuracy of the Examiner's characterization of the applied references or applicability of any of these references against the pending claims, for the above reasons the Office Action fails to state a *prima facie* case of obviousness. Therefore, Applicants respectfully request the withdrawal of this rejection under 35 U.S.C. § 103(a).

17. The Provisional Rejection over Numerous References is improper

At pages 374-391 of the Office Action it is stated: "Pending claims of the group 2 to 303 that are directed to, *inter alia*, either process of controlling affiliate stations and processes and monitoring of those processes and combined medium presentation or processes of controlling subscriber stations and method and process for monitoring and providing combined medium presentations, or both, that fall out each particular determined group members of the group of claims described in rejection above, the groups are provisionally rejected further in view of one or more of [some thirty-six listed references]." This statement clearly fails to state a proper rejection. This statement fails to provide reasons for a rejection and is clearly so uninformative that it prevents the applicant from recognizing and seeking to counter any potential grounds for rejection. Applicants cannot determine to what claims this statement is applicable. The Examiner has failed to cite to the best references and avoid merely cumulative references. The references cited include at least some that cannot be relied upon as prior art against the pending claims. The Examiner has failed to explain the pertinence of each reference and to specify each rejected claim. The Office Action includes an explanation of the Examiner's understanding of the level of skill in the art in terms of some of the cited references. However, this explanation fails to include the elements of a proper rejection

under 35 U.S.C. § 103(a). Furthermore, the statement does not purport to be a rejection, but rather states that groups are *provisionally* rejected. Applicants find no rejection in this statement by the Examiner to which a response from Applicants is required.

The Examiner has no authority to "provisionally" reject claims in view of one or more of a large group of generally cumulative references. The Office Action includes no reference to any authority for this "provisional" rejection. The M.P.E.P. provides for a provisional rejection only in the situation where a pending application upon issuance will become valid prior art, against provisionally rejected claims, under 35 U.S.C. § 102(e), 35 U.S.C. § 101 (statutory double patenting), or the judicially created doctrine of obvious type double patenting. The pending application used in the provisional rejection must have a common assignee or common inventor with the application containing the provisionally rejected claims. *See*, M.P.E.P §§ 706.02(f), 706.02(k), and 804. The provisional rejection is permitted to alert applicants that they should expect an actual rejection on the merits if and when the applied pending application issues. There is no authority nor is there any good reason to issue a provisional rejection over references that are issued patents or have been published. The Examiner appears to attempt to alert Applicants to potential rejections that will be made once the Examiner has fully reviewed and analyzed the instant application to determine whether the claims define a useful, novel, non-obvious, and enabled invention that has been clearly described in the specification. However, the Examiner should clearly articulate any rejection early in the prosecution process so Applicants have the opportunity to provide evidence of patentability and otherwise respond completely at the earliest opportunity. M.P.E.P. § 706. The Examiner may not reserve rejections for future actions. "The examiner's action will be complete as to all matters." 37 C.F.R. § 1.104(b). "If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable *will* be rejected." 37 C.F.R. § 1.104(c)(1)(emphasis added). As this purported "provisional" rejection is asserted under no authority and fails to clearly

articulate any rejection, Applicants respectfully submit that this "provisional" rejection has no effect on the instant application.

G. Response to Examiner's Administrative Requirement

Applicants respectfully traverse the requirements imposed by the Examiner in the Office Action at page 397.

The Examiner requires Applicants to either:

(1) file terminal disclaimers in each of the related 329 applications terminally disclaiming each of the other 329 applications; or

(2) provide an affidavit attesting to the fact that all claims in the 329 applications have been reviewed by applicant and that no conflicting claims exist between the applications; or

(3) resolve all conflicts between claims in the related 329 applications by identifying how all the claims in the instant application are distinct and separate inventions from all the claims in the above identified 329 applications.

Applicants traverse this requirement for the reasons stated in Section II D of the Amendment and Request for Reconsideration filed June 27, 1998. Applicants herein incorporate by reference the Petition To The Commissioner Under 37 C.F.R. § 1.181 filed March 7, 2000, in Application Serial No. 08/470,571 (Atty. Dkt. No. 05634.0261), which fully responds to this administrative requirement.

H. Response to Obviousness-Type Double Patenting Rejection

Applicants respectfully request that the Final Office Action reconsider and withdraw his rejection based on obviousness-type double patenting on two separate grounds.

1. The Final Office Action has totally confused and misapplied the established law of double patenting and, further, has failed to follow the mandates of the Manual of Patent Examining Procedure as to double patenting rejections.

2. The Final Office Action has also failed to analyze the pending claims on a limitation-by-limitation basis to demonstrate that no patentable distinctions exist between the pending claims and those in the issued Harvey patents.

PTO Assertions in Office Action mailed January 7, 2000

The Final Office Action has rejected claims 2-303 of the application under the judicially created doctrine of obviousness-type double patenting as being unpatentable over at least one or more of :

claims 1-13 of U.S. Patent No. 4,684,490 (Harvey I);

claims 1-5 of U.S. Patent No. 4,704,725 (Harvey II);

claims 1-25 of U.S. Patent No. 4,965,825 (Harvey III);

claims 1-26 of U.S. Patent No. 5,109,414 (Harvey IV);

claims 1-71 of U.S. Patent No. 5,233,654 (Harvey V); and

claims 1-56 of U.S. Patent No. 5,335,277 (Harvey VI),

in view of at least one or more of: Haselwood, Yamane et al., Hetrich, Gunn, Marsden, Young, Flynn, Davis, Tunmann et al., Germany, Byloff, Chiddix, Skilton, Schiller, Zettl, Vikene, Greenberg, Jeffers, Diederich, Campbell et al., Kazama et al., Gosch, Stern, Breeze, Barlow, Millar et al., Galumbeck et al., CBS/CCETT North American Broadcast Teletext Specification, Zaboklicki, Nagel, Kakihara, Hedger, Anderson, Gaucher and Schnee et al.

The Final Office Action states on page 406 that "it is apparent that no pending claim is more than an obvious variation of the patented claims when the teachings discussed throughout this action are considered." Applicants respectfully traverse the Final Office Action's double patenting rejection on these grounds. Applicants' Appendix B submitted herewith demonstrates the patentable distinctions of the instant claims over Applicants' patented claims per the comparison given in the Final Office Action's Appendix A. The Applicants have underlined the instant claim language to identify which portions, *inter alia*, demonstrate these patentable distinctions. The Final Office

Action fails to properly reject on double patenting grounds this specified language since the alleged variatations between the instant claims and the patented claims were never identified in the body of the double patenting rejection at paragraph 52. None of the prior art cited, i.e., Haselwood, Yamane et al., Hetrich, Gunn, Marsden, Young, Flynn, Davis, Tunmann et al., Germany, Byloff, Chiddix, Skilton, Schiller, Zettl, Vikene, Greenberg, Jeffers, Diederich, Campbell et al., Kazama et al., Gosch, Stern, Breeze, Barlow, Millar et al., Galumbeck et al., CBS/CCETT North American Broadcast Teletext Specification, Zaboklicki, Nagel, Kakihara, Hedger, Anderson, Gaucher and Schnee et al., specifically addressed each how each and every variation of Applicants' instant claims would have been an obvious variation to one of ordinary skill in the art over Applicants' patented claims. Applicants maintain that the instant claim language is patentably distinct and would not have been an obvious variation to one of ordinary skill in the art over each of Applicants' patented claims—both listed in the Final Office Action's Appendix A, and the remainder of Applicants' patented claims.

The Final Office Action additionally states on page 406-407 that, "assuming *arguendo*, that Applicants' patents, alone, do not cover the pending claims, they are clearly not independent and distinct when the body of prior art described in this action, *inter alia*, is considered. Here, the differences, ... they are ... suggest by the prior art."

The Final Office Action's application of obviousness-type double patenting standard represents an erroneous and misapplied interpretation of existing case law and is contrary to patent examining procedure. First, the Final Office Action has confused and misapplied the established law of double patenting and has failed to follow the mandates of the M.P.E.P. as to double patenting rejections. Secondly, the Final Office Action has also failed to analyze the pending claims on a limitation-by-limitation basis to demonstrate that no patentable distinctions exist between the pending claimed and those issued in the Harvey patents as required by the M.P.E.P.

Based on the following discussion, Applicants respectfully request the withdrawal of these rejections.

1. The Scope of the Double Patenting Doctrine

The prohibition against double patenting is a judicial doctrine based on the language of 35 U.S.C. § 101, which specifies that an inventor who invents "any new and useful process, machine, manufacture, or composition of matter...may obtain a patent therefor." In *Miller*[1], the U.S. Supreme Court held the term "a patent" to mean, "two valid patents for the same invention cannot be granted either to the same or to a different party."[2] Therefore, the claims in a second patent must be patentably distinct from the claims in a first patent or the second patent would be an improper extension of the first.

As the preclusion is to obtaining two patents on the same invention or an obvious modification of the same invention, the sole question is whether by examining the scope of the claims, one has attempted to claim the same subject matter twice, or an obvious variation. No prohibition exists against a second patent on subject matter that is disclosed but not claimed in the first patent.

Under 35 U.S.C. § 120, a patent applicant may submit additional claims in a subsequent application which are supported by the disclosure in the original applications' specification. A proper continuation application and its original application are considered "parts of the same transaction, and both as constituting one continuous application, within the meaning of the law."[3] Furthermore, 35 U.S.C. § 120 does not place a definite time limit on filing a continuing application. Rather, all that is required to preserve an earlier effective filing date as to common subject matter is copendency or a continuous chain of copendency.

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[1] *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894).

[2] *Id. at* 197.

[3] *In re Hogan*, 449 F.2d 595, 603 (CCPA 1977)(quoting *Godfrey v. Earnes*, 68 U.S. 317, 325-6 (1864)).

The double patenting doctrine prevents an extension of a patent term which would occur if successive patents were allowed on the same invention or obvious variants. However, if two patents contain the same disclosure, but claim different inventions or nonobvious variations, double patenting does not exist.

2. Patent Office Procedure

The U.S. Patent and Trademark Office ("PTO") has specified a procedure in the Manual of Patent Examining Procedure (M.P.E.P.) for Final Office Actions to follow in establishing a *prime facie* case of double patenting. In determining whether a proper basis exists for a double patenting rejection, the Final Office Action must determine whether:

1. A double patenting rejection is prohibited by the third sentence of 35 U.S.C. § 121 related to divisional applications,

2. A statutory basis exists (i.e., whether same-invention double patenting is present), or

3. A non-statutory basis exists (i.e., whether obviousness-type double patenting is present).[4]

Assuming the application is not a divisional application, the Final Office Action must establish in step 2 that the same invention is being claimed twice. The Court specified in *In re Vogel*, 422 F.2d 438, 164 U.S.P.Q. 619 (C.C.P.A. 1970), that in determining same-invention double patenting analysis, one must ask "is the same invention being claimed twice?...[The] "invention" here means what is defined by the claims, whether new or old, obvious or unobvious....By the "same invention" we mean identical subject matter."[5] The court stated "that claims may be differently worded and

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[4] M.P.E.P. § 804.

[5] *In re Vogel*, 422 F.2d at 441.

still define the same invention."[6] In conclusion, the court found "the only objective test" for same-invention double patenting as,

> whether one of the claims could be literally infringed without literally infringing the other. If it could be, the claims do not define identically the same invention.[7]

If there is no same-invention double patenting, then the Final Office Action must establish in step 3 obviousness-type double patenting wherein the grant of a patent with the claims in the application would unjustly extend the rights granted by the first patent.

3. Nonstatutory Double Patenting

In defining nonstatutory double patenting, the M.P.E.P. provides three types of nonstatutory-type double patenting based on the judicial doctrine, which include one-way obviousness, two-way obviousness[8], and nonobviousness rejections.[9]

Under the M.P.E.P. requirements, if the application at issue is the later filed application, only a one-way determination of obviousness is needed to resolve the issue of double patenting. The issue to be determined is whether the invention defined in a claim in the application is an obvious variation of the invention defined in a claim of the patent. See, e.g., In re Berg, 46 U.S.P.Q.2d 1226 (Fed. Cir. 1998). The M.P.E.P mandates that unless a claimed invention in the application is obvious over a claimed invention in the patent, an Final Office Action should make no double patenting rejection of the

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[6] *Id.*

[7] *Id.*

[8] A two-way obviousness double patenting rejection arises in the specific instance where the claims of a patent application are being compared with the claims of a later filed but earlier issued patent. This is not the case with respect to the present double patenting rejection.

[9] M.P.E.P. § 804. Nonobviousness-type double patenting rejections arise in circumstances as described in *In re* Schneller, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). With respect to the instant application, a nonobviousness-type double patenting rejection was made on February 6, 1997, and withdrawn in the Office Action mailed on March 31, 1998.

obviousness-type. Thus, the sole issue is the scope of the inventions as defined by the claim language in the patent and later filed application.

a) Standard for Determining One-Way Obviousness-Type Double Patenting

In re Kaplan[10], the Federal Circuit specified that an obviousness-type double patenting rejection rests on the prohibition against issuance of a second patent that would continue protection, beyond the expiration date of the first patent, or a mere variation of the previous patented invention that would have been obvious to those of ordinary skill in the relevant art.

Thus, in establishing a *prima facie* case of obviousness-type double patenting, the Final Office Action must,

1. Identify the inventions claimed in the claims under consideration and in the patent claims,

2. Establish that any variation(s) between the inventions claimed in the claims under consideration and the earlier-issued patent claims would have been obvious to person of ordinary skill in the art, and

3. Establish a prima facie case of obviousness.[11]

To summarize, the Final Office Action must show that (1) the inventions claimed (2) are not patentably distinct based on (3) a *prima facie* showing of obviousness. Instead, the Final Office Action has provided bald statements that obvious variations exist. The mere finding that the claims themselves are obvious variations, without

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[10] *In re* Kaplan, 789 F.2d 1574, 229 USPQ 678 (Fed. Cir. 1986).

[11] *See In re* Longi, 759 F.2d 887, 225 USPQ 645, 651 (Fed. Cir. 1985) (Final Office Action must provide *prima facie* case of obviousness for obviousness-type double patenting rejection. The burden then shifts to the Applicant to rebut the *prima facie* case).

establishing that the alleged variations would have been obvious, cannot properly support an obviousness-type double patenting rejection.

In the Final Office Action under paragraph 52, the Final Office Action has failed to establish a *prima facie* showing of obviousness-type double patenting in the rejection of claims 2-303. In particular, the Final Office Action has not identified the scope of the inventions of the instant application and the patents as determined by the claims. Secondly, the Final Office Action has not positively identified any variations in the claims of the instant application and the claims of the patent. Final Office Action has provided broad allegations that obvious variants exist, but fails to specifically state these allegedly obvious variants. Thirdly, the Final Office Action has not shown a *prima facie* case of obviousness under the requirements of 35 U.S.C. § 103. The Final Office Action has not indicated proper motivation in making the alleged obvious modifications; i.e.,:

"for the convenience gained in the recording of the information on a tape or video recorder"

"the benefit of greater network operation control"

"the benefit of the ability to, *inter alia*, decrypt and hence secure programming"

"the benefits described above including, *inter alia*, enhanced subscriber station services" and

"for the convenience gained" in fourteen separate occurrences.

(None of these statements of motivation for obvious variations correspond to any of the Applicants' patentable distinctions between Applicants' instant and patented claims, *inter alia*, as represented in the specified language in Appendix B.)

(1) Identifying the Inventions Claimed

(a) Scope of the Inventions as Defined by the Claim Language

The C.C.P.A. in *In re Vogel*[12] summarized this step by asking, "does any claim in the application define merely an obvious variation of an invention disclosed and claimed in the patent?"[13] The analysis is based on what the claim defines, and not merely the claim language itself. This first step in the analysis should not focus on what the claim language *discloses*, but on rather what the claim language *defines*.[14] As noted by the Federal Circuit,

> ...it is important to bear in mind that comparison can be made only with what invention is *claimed* in the earlier patent, paying careful attention to the rules of claim interpretation to determine what invention a claim *defines* and not looking to the claim for anything that happens to be mentioned in it *as though it were a prior art reference*.[15]
>
> ...
>
> [T]he fundamental rule of claim construction, that what is claimed is what is *defined by the claim taken as a whole,* every claim limitation...being material[16]
>
> ...
>
> [P]atent claims are looked to only see what *has been patented*, the subject matter which *has been protected*, not for something one may find to be disclosed by reading them[17]

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[12] *In re Vogel*, 422 F.2d 438, 164 USPQ 619.

[13] *Id.*, 164 USPQ at 622.

[14] *General Foods Corp. v. Studiengesellschaft Kohle mbh*, 972 F.2d 1272, 23 USPQ 1893, 1845 (Fed. Cir. 1992).

[15] *Id.*, 972 F.2d at 1280.

[16] *Id.*

[17] *Id.* citing *In re Aldrich,* 398 F.2d 855, 859, 158 USPQ 311, 314 (CCPA 1968).

Rather than identifying the scope of the inventions as defined by the claims, the Final Office Action has assumed an obviousness-type double patenting rejection based on "the extent [the claims] are supported by [the 1981 disclosure] or are at least obvious over what [the 1981 disclosure], *in fact*, supports...[as] suggested by the prior art." There is no statutory basis for this improper interpretation of obviousness-type double patenting.

(b) Proper Use of Specification

Because the obviousness-type double patenting rejection requires claim interpretation, the Final Office Action may use the specification in a limited capacity to assist in interpreting what the claim language defines. The patent disclosure cannot be used as prior art, but the disclosure can be used to (1) determine the meaning of terms in a claim and may also be used as required to (2) answer the above question, "whether the claim in the application defines merely an obvious variation of the invention disclosed and claimed in the patent."[18] With respect to "the invention disclosed and claimed in the patent," the Federal Circuit stated in *Vogel*,

> We recognize that it is difficult, if not meaningless, to try to say what is or is not an obvious variation of a claim. A claim is a group of words defining only the boundary of the patent monopoly....The disclosure, however, sets forth at least one tangible embodiment within the claim, and it is less difficult and more meaningful to judge whether that thing has been modified in an obvious manner. It must be noted that this use of the disclosure is not in contravention of the cases forbidding its use as prior art, nor is it applying the patent as a reference under 35 U.S.C. § 103, since only the disclosure of the invention claimed in the patent may be examined.[19]

[18] *In re Vogel*, 422 F.2d at 441.

[19] *Id.*, 422 F.2d at 442.

Therefore, it is proper to identify the invention claimed in the patent by using ***exclusively only the portion(s) of the disclosure supporting the claimed invention.*** Alternately, it is improper to make a double patenting rejection when the rejection relies on specification support other than the specific portion(s) of the disclosure supporting the claimed invention.

It has been repeatedly held that use of disclosure of a patent cited in support of a double patenting rejection cannot be used as through it were prior art, even where the disclosure is found in the claims. *See, e.g., Braat*, 937 F.2d at 594 n.5, 19 U.S.P.Q. at 1293 n.5 ("The patent disclosure must not be used as prior art"); *Vogel*, 422 F.2d at 442, 164 USPQ at 622 (in considering obviousness-type double patenting, "the patent disclosure may not be used as prior art"); *In re Plank*, 399 F.2d 241, 242, 158 U.S.P.Q. 328, 329 (C.C.P.A. 1968) ("Its claims are used as the basis for a double patenting rejection. It is not a prior art reference"); *In re Aldrich*, 398 F.2d 855, 859, 158 U.S.P.Q. 311, 314 (C.C.P.A. 1968) ("[P]atent claims are looked to only to see what has been patented, the subject matter which has been protected, not for something one may find to be disclosed by reading them.")

In the instant case, the Final Office Action has improperly relied on the specification in making the obviousness-type double patenting rejection. Applicants have previously alleged that all of the pending claims 2-303 are 'fully supported' by the 1981 specification. Whether support is provided for the claim language is an issue separate from the scope of the claims in the determination of a double patenting rejection. Claim interpretation is limited to what the claim language defines as the scope of the invention. The Final Office Action has failed to follow the mandates as expressed in the M.P.E.P.

thereby failing to establish a *prima facie* case of double patenting of the obviousness-type.

According to *In re Vogel*, one must first "determine how much of the patent disclosure pertains to the invention claimed in the patent" because only "[t]his portion of the specification supports the patent claims and may be considered." The Final Office Action has disregarded this critical step in his analysis of the obviousness-type double patenting rejection.

(2) Establishing Variations between the Invention Claimed and the Invention Defined in the Patent Claims

Based on the proper identification of each of the inventions, *supra*, the Examiner then must identify the variation(s) between the inventions being claimed in the application and the invention as defined by the claims in the patent.

As discussed above, the Final Office Action has not properly identified the inventions in paragraph 53. In fact, the Final Office Action has failed to analyze and interpret the claims on a limitation-by-limitation basis to demonstrate that no patentable distinctions exist between the pending claims and those in the issued Harvey patents. Rather, in an attempt to address the variations between the inventions, the Final Office Action provides broad allegations that "no pending claim is more than an obvious variation of the patented claims when the teachings discussed throughout this section are considered." (Final Office Action at 406.) However, the Final Office Action has failed to specifically identify these variations. Such blanket assertions do not fulfill the requirement of identifying variations between the invention claimed and the invention defined by the patent claims, as mandated by the M.P.E.P.

The Final Office Action fails to presents any attempt at establishing variations between the invention claimed and the invention defined in the patent claims. The Final

Office Action is required to identify the variations between the inventions being claimed and the invention as defined by the patent claims.

Applicants provide Appendix B herewith, which identify Applicants' patentable subject matter of the instant claims over Applicants' patented claims.

(3) Variations Would Have Been Obvious to a Person of Ordinary Skill in the Art

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966) that establish a background for determining obviousness under 35 U.S.C. § 103 are employed when making an obviousness-type double patenting analysis. However, the "patent principally underlying the double patenting rejection is not considered prior art."[20] The factual inquiries are summarized as follows:

(A) Determine the scope and content of the patent claim and the prior art relative to the claim in the application at issue;

(B) Determine the differences between the scope and content of the patent claim and the prior art as determined in (A) and the claim in the application at issue;

(C) Determine the level of ordinary skill in the pertinent art; and

(D) Evaluate any objective indicia of nonobviousness.[21]

Additionally, the Federal Circuit held in *Kaplan* that obviousness-type double patenting rejections must include clear evidence to establish why an alleged variation of an invention claimed in a prior patent would have been obvious.

> [T]here must be some clear evidence to establish why the variation would have been obvious which can properly qualify as "prior art." Even if obviousness of the variation is predicated on the level of skill in the art, prior art evidence is needed to show what the level of skill was.[22]

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[20] *In re Longi*, 759 F.2d at 892, n.4 (citing *In re Braithwaite*, 379 F.2d 594, 600 n.4, 54 CCPA 1589, 154 USPQ 29 (CCPA 1967)).

[21] M.P.E.P. § 804 (II) B (1).

[22] *Id.* at 683.

Otherwise, if no clear prior art evidence establishes that the variation(s) in the application claims are obvious over the invention defined by the claims of the patent, one can assume that the characteristic of the claims including the variation(s),

> appear that the invention covered by the later patent was a separate invention, distinctly different and independent from that covered by the first patent; in other words, it must be something substantially different from that comprehended in the first patent. It must consist in something more than a mere distinction of the breadth or scope of the claims of each patent.[23]

As discussed above, the Final Office Action has failed to properly identify the inventions as claimed and has further failed to identify the variations as required for a proper obviousness-type double patenting rejection. Nonstatutory double patenting is intended to prevent prolongation of the patent term by prohibiting the extension of patent monopolies in successive patents. While the prohibition of extending patent monopolies is a policy concern, a statement of motivation for establishing obviousness under 35 U.S.C. § 103 is nevertheless lacking. Because Final Office Action has not provided proper evidence that establishes that the unspecified variations are obvious over the invention as defined by the claims, the claims of the instant application may be assumed to be a separate and distinct inventions.

The Final Office Action provides the following motivation for the unspecified variations between the instant claims and Applicants' patented claims:

"for the convenience gained in the recording of the information on a tape or video recorder,"

"the benefit of greater network operation control,"

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[23] *Miller v. Eagle Mfg. Co.*, 151 U.S. at 198.

"the benefit of the ability to, *inter alia*, decrypt and hence secure programming,"

"the benefits described above including, *inter alia*, enhanced subscriber station services," and

"for the convenience gained" in fourteen separate occurrences.

(Again, none of these statements of motivation for obvious variations correspond to any of the Applicants' patentable distinctions between Applicants' instant and patented claims, *inter alia*, as represented in the specified language in Appendix B.)

Each of these statements lacks the proper motivation for establishing obviousness under 35 U.S.C. § 103 for at least the following reasons. First, for the first four motivation statements listed, they have completely ignored any of Applicants' claim language, and more specifically, any of Applicants' variations in language between the instant and patented claims. Second, "for the convenience gained" does not answer the question of whether the differences would have been obvious to one of ordinary skill in the art. This attempt at providing motivation fails to take into consideration the level of ordinary skill at the time of the invention. To determine whether greater functionality provides adequate motivation, the Final Office Action should take into consideration (among other things) the level of ordinary skill in the art, as expressly provided in M.P.E.P § 804 (II)B(1) and *Graham v. John Deere Co.*[24] A proper motivation statement takes into consideration what would have been obvious to someone with ordinary skill in the art at the time of the invention. Without this determination, a modification cannot be deemed obvious for "convenience gained". Final Office Action attempts to provide the level of ordinary skill in the art on pages 400-401 in with the Schiller et al. reference. However, the Final Office Action nevertheless fails to provide a teaching as to how the differences would have been obvious. A variation may not be assumed to be obvious

[24] 383 U.S.1, 148 USPQ 459 (1966).

merely because greater functionality is alleged to be provided. The Final Office Action has failed to provide a proper statement of motivation.

Third, Final Office Action's statements of motivation is overly broad. The statement of "for the convenience gained" does not adequately provide a teaching to one of ordinary skill in the art. According to the Final Office Action's reasoning, any and all differences between sets of claims, whether novel or not, will be considered obvious due to "convenience gained". The Final Office Action's version of motivation is improper and erroneous.

Finally, while a variation provides "for the convenience gained", it may also be considered novel and non-obvious. For example, while an improvement on a widget provides "for the convenience gained", the improvement may just as well be novel and therefore merit patent protection. Non-obvious improvements provide "convenience gained" to the user. Likewise, a mere change in color may also provide greater functionality to the user. However, based on the level of ordinary skill in the art at the time of the invention, a mere color change may be considered to be an obvious variation. Because Final Office Action's version of motivation may be construed in two dynamically different ways, the motivation statement of providing "for the convenience gained", as applied to "the differences" is clearly deficient.

4. Conclusion

The Final Office Action's basis for the double patenting rejections is inconsistent with the Patent Office Procedures found in the M.P.E.P. The Final Office Action has fatally misapplied and confused the established law of double patenting.

To establish a proper obviousness-type double patenting rejection, the PTO must show that (1) the inventions claimed (2) are not patentably distinct and (3) are based on a *prima face* showing of obviousness. According to § 804 of the M.P.E.P, any obviousness-type double patenting rejection should make clear the differences between

the inventions defined by the conflicting claims; and the reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim in issue is an obvious variation of the invention defined in a claim in the patent. As discussed above, the Final Office Action has not identified the claimed inventions; established variations; or shown that variations would have been obvious to a person of ordinary skill in the art.

Therefore, the Final Office Action has failed to properly establish a *prima facie* basis for a double patenting rejection of the obviousness type. Applicants respectfully request withdrawal of the rejection of all pending claims.

I. Response to Objection to the Specification

The Office Action, in Section VII, rejects Applicants' basis of support for the amendment to the specification of June 2, 1999. The amendment changes page 37, lines 23-25, of the specification to read:

> Controller, 39, 44, or 47, is preprogrammed to receive [units] words of signal information, to assemble said [units] words into signal [words] units that subscriber station apparatus can receive and process, and to transfer said [words] units to said apparatus.

(Additions underlined, deletions bracketed.)

Applicants submit that this amendment corrects an inadvertent error made in preparation of the specification as filed. The amendment includes no new matter. The Examiner provides no reasons for objecting to this amendment, rather the Examiner notes that the amendment was submitted more than 18 years after the priority benefit claimed. The effective filing date of this application is irrelevant to the question of whether the amendment introduces new matter to the specification. The Examiner rejects Applicants' assertion that page 14, line 26, through page 15, line 6, supports the amendment. For at least the following reasons, the amendment does not add new matter to the specification.

The amended language describes that aspect of the invention in which signal words are received and assembled into signal units. The assembly of signal words into

signal units is described consistently throughout the specification in the manner effected by the amendment. As the amendment merely clarifies the disclosure, the amendment introduces no new matter.

The specification as filed, on page 14, lines 23-25, describes, "discrete words . . . that receiver apparatus must assemble in order to receive one complete instruction." A signal unit is defined as "one complete signal instruction." (Spec. at 14 ll. 26-27.) Thus, words must be assembled to create a signal unit. The specification consistently discloses that signal words are received and assembled into signal units.

Further, the specification consistently refers to signal words as the basic information block from which other information units are formed. The specification at page 65, lines 34-35, states; "Each message is composed in a whole number of signal words." "Said information consists of a series of discrete signal words." (Spec. at 70 ll. 28-29.) "[S]aid given signal word is an EOFS WORD and may be part of an end of file signal." (Spec. at 71 ll. 5-7.) "[T]o detect those particular uninterrupted series of EOFS WORDs that constitute end of file signals." (Spec. at 74 ll. 11-12.) "For example, end of file signals could include the signal word preceding said uninterrupted sequence." (Spec. at 82 ll. 23-25.) Signal words are formed into commands and other signals throughout the specification.

Applicants maintain that the amendment to the specification filed June 2, 1999, corrects an obvious error in the specification as originally filed. The amended language describes the assembly of signal words into signal units. The assembly of signal words into signal unit is described at page 14, lines 23-27, of the specification. Therefore, the amendment does not include new matter. Accordingly, Applicants request that the any objection to the specification be withdrawn.

J. Response to Allegation of Defective Oath/Declaration

The Examiner asserts that the oath or declaration is defective. (Office Action § VIII.) The Examiner asserts Applicants have filed another continuation-in-part when the instant disclosure was filed. Thus, the Examiner requires a new oath or declaration that acknowledges the duty to disclose to the Office all information known to Applicants to be material to patentability which occurred between the filing date of the prior application and the filing date of the instant application. Applicants note that the disclosure as filed June 6, 1995, is identical to the disclosure of Application No. 113,329. Applicants properly filed the instant application under the provisions of 37 C.F.R. § 1.60 as in effect on June 6, 1995. Rule 60 provided conditions under which an Applicant may omit signing a new oath or declaration in a continuation application. Applicants respectfully submit that they have fully complied with the provisions of Rule 60 as in effect upon filing of the instant application. Accordingly, Applicants request that the requirement for a new oath or declaration be withdrawn. Notwithstanding the above, should the Examiner maintain the requirement to file a new oath or declaration, Applicants respectfully request that the requirement be held in abeyance until allowable subject matter is indicated as provided under 37 C.F.R. § 1.111.

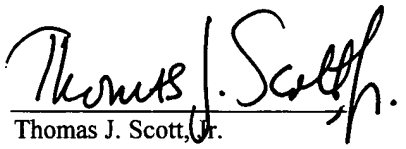
The Examiner addresses the preliminary amendment filed June 5, 1995, which substituted on page 1 a paragraph under 35 U.S.C. § 120 including references to related applications. This amendment included the statement: "This is a continuation of application serial no. 08/113,329, filed August 30, 1993, herein incorporated by reference in its entirety." The Examiner apparently believes this statement introduced new matter into the specification. As the document attempted to be incorporated by reference is an *identical* specification to the specification of the instant application, the Examiner's basis for this position is not entirely clear to Applicants. However to advance the prosecution of this application Applicants request that any alleged new matter be removed by canceling the phrase "herein incorporated by reference in its entirety" from page 1.

III. CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,



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